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NORMAL PROBABILITIES FOR CAPE KENNEDY WIND
COMPONENTS — MONTHLY REFERENCE PERIODS
FOR ALL FLIGHT AZIMUTHS — ALTITUDES
0 TO 70 KILOMETERS

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NORMAL PROBABILITIES FOR CAPE KENNEDY
WIND COMPONENTS — MONTHLY REFERENCE PERIODS
FOR ALL FLIGHT AZIMUTHS - ALTITUDES
0 TO 70 KILOMETERS

INTRODUCTION

Cape Kennedy empirical wind component statistics are presently being used for aerospace engineering applications that require component wind probabilities for various azimuths and selected altitudes [1]. This document replaces the empirical statistics given in Reference 1 with theoretical statistics using the normal (Gaussian) distribution as an acceptable statistical model for component winds for altitudes 0 to 70 km at Cape Kennedy, Florida. The tables are presented in a format that is analogous to that given in Reference 1. Tabulations for all months, January through December, are included. The normal distribution was not applied to the annual reference period since this is a heterogeneous sample and should not be represented by a univariate statistical model. If statistics are required for the annual reference period, it is recommended that the empirical statistics [1] be used.

Tables 1.1 through 1.12 present bivariate normal statistics for all months for the 90 degree flight azimuth. Tables 2.1 through 13.12 present head- and tailwind components and right and left crosswind components for all altitudes 0 through 70 kilometers for flight azimuths ranging from 30 degrees to 105 degrees in 15-degree increments. Head- and tailwinds are coincident with flight azimuth; right and left crosswinds are orthogonal to flight azimuth. Considering head- and tailwinds for a given flight azimuth, a negative wind indicates a headwind and a positive wind indicates a tailwind. Also, for right and left crosswinds, a negative wind indicates a left crosswind while a positive wind indicates a right crosswind. All wind components are in meters per second. Symmetry allows one to obtain all 15-degree incremental flight azimuths not given in the tables from the following tabulation.

*This document supersedes TMX-53956, "Cape Kennedy Wind Component Statistics Monthly and Annual Reference Periods For All Flight Azimuths From 0 To 70 Km Altitude".

USE OF PUBLISHED STATISTICS TO OBTAIN OTHER FLIGHT AZIMUTHS (α = FLIGHT AZIMUTH)

To Obtain	Headwind	Tailwind	Left Crosswind	Right Crosswind
$\alpha = 15 \text{ deg}$	Use $\alpha = 105 \text{ deg}$ Left Crosswind (-)	Use $\alpha = 105 \text{ deg}$ Right Crosswind (+)	Use $\alpha = 105 \text{ deg}$ Tailwind (+)	Use $\alpha = 105 \text{ deg}$ Headwind (-)
$\alpha = 360 \text{ deg}$	Use $\alpha = 90 \text{ deg}$ Left Crosswind (-)	Use $\alpha = 90 \text{ deg}$ Right Crosswind (+)	Use $\alpha = 90 \text{ deg}$ Tailwind (+)	Use $\alpha = 90 \text{ deg}$ Headwind (-)
$\alpha = 120 \text{ deg}$	Use $\alpha = 30 \text{ deg}$ Right Crosswind (+)	Use $\alpha = 30 \text{ deg}$ Left Crosswind (-)	Use $\alpha = 30 \text{ deg}$ Headwind (-)	Use $\alpha = 30 \text{ deg}$ Tailwind (+)
$\alpha = 135 \text{ deg}$	Use $\alpha = 45 \text{ deg}$ Right Crosswind (+)	Use $\alpha = 45 \text{ deg}$ Left Crosswind (-)	Use $\alpha = 45 \text{ deg}$ Headwind (-)	Use $\alpha = 45 \text{ deg}$ Tailwind (+)
$\alpha = 150 \text{ deg}$	Use $\alpha = 60 \text{ deg}$ Right Crosswind (+)	Use $\alpha = 60 \text{ deg}$ Left Crosswind (-)	Use $\alpha = 60 \text{ deg}$ Headwind (-)	Use $\alpha = 60 \text{ deg}$ Tailwind (+)
$\alpha = 165 \text{ deg}$	Use $\alpha = 75 \text{ deg}$ Right Crosswind (+)	Use $\alpha = 75 \text{ deg}$ Left Crosswind (-)	Use $\alpha = 75 \text{ deg}$ Headwind (-)	Use $\alpha = 75 \text{ deg}$ Tailwind (+)
$\alpha = 180 \text{ deg}$	Use $\alpha = 90 \text{ deg}$ Right Crosswind (+)	Use $\alpha = 90 \text{ deg}$ Left Crosswind (-)	Use $\alpha = 90 \text{ deg}$ Headwind (-)	Use $\alpha = 90 \text{ deg}$ Tailwind (+)
$\alpha = 195 \text{ deg}$	Use $\alpha = 105 \text{ deg}$ Right Crosswind (+)	Use $\alpha = 105 \text{ deg}$ Left Crosswind (-)	Use $\alpha = 105 \text{ deg}$ Headwind (-)	Use $\alpha = 105 \text{ deg}$ Tailwind (+)

THE NORMAL DISTRIBUTION

The normal distribution has many advantages for use as a statistical model to represent random variables. It is the best known and most useful distribution in mathematical statistics. Its probability density function is

$$f(x) = \frac{1}{\sigma \sqrt{2\pi}} \exp \left[-\frac{(x - \mu)^2}{2\sigma^2} \right] , \quad (1)$$

$$-\infty < x < \infty , \quad -\infty < \mu < \infty , \quad \sigma > 0 ,$$

where μ and σ are location and scale parameters, respectively, of the distribution. μ is the mean and σ is the standard deviation. Normal distributions with different values of μ and a common σ , and with different values of σ for a common μ are shown in Figures 1 and 2, respectively. All normal distributions are symmetric and have the same bell-type shape.

The cumulative normal distribution function is

$$F(x) = \frac{1}{\sigma \sqrt{2\pi}} \int_{-\infty}^x \exp \left[-\frac{(z - \mu)^2}{2\sigma^2} \right] dz . \quad (2)$$

The distribution function [equation (2)] gives the probability of a randomly selected value from a normal distribution with parameters μ and σ being less than or equal to x . This cumulative probability is the "cumulative percentage probability" or "percentiles" given in the tables. The random variable x (wind components in meters per second) is given in the body of the tables. To relate percentiles to the normal distribution function, one may use:

<u>Normal Distribution</u>	<u>Percentile</u>
Mean - 3 standard deviations	0.135
Mean - 2 standard deviations	2.280
Mean - 1 standard deviation	15.900
Mean	50.000
Mean + 1 standard deviation	84.100
Mean + 2 standard deviations	97.720
Mean + 3 standard deviations	99.865

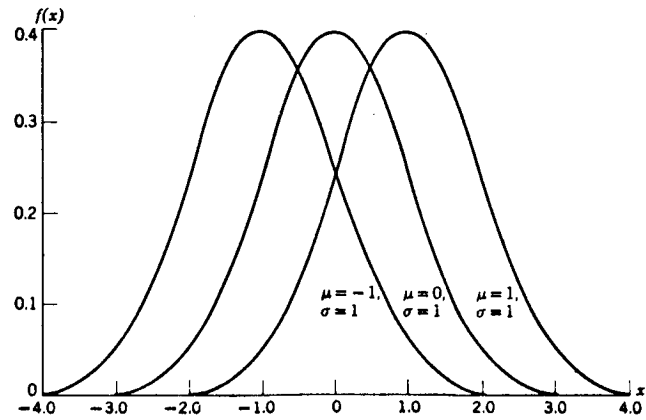


Figure 1. Normal distributions with different values of μ and same σ .

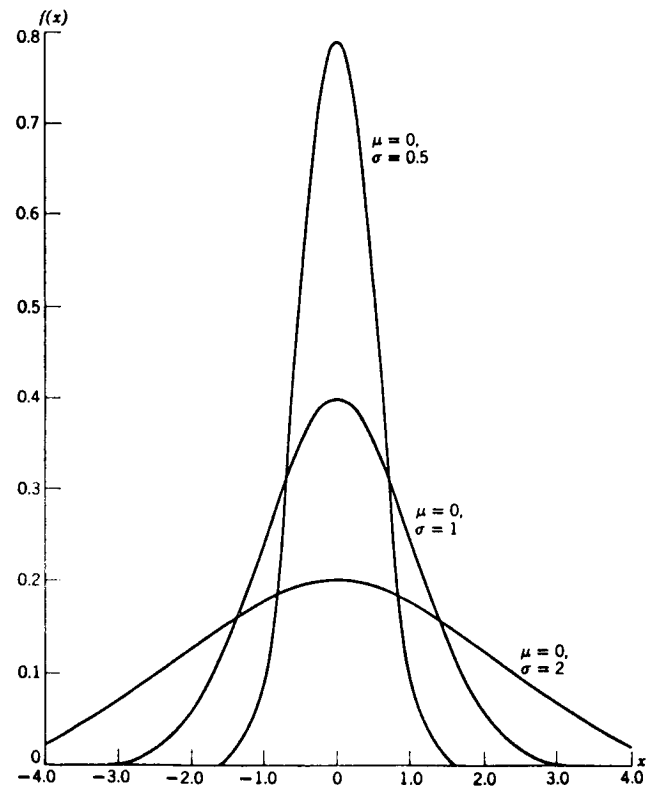


Figure 2. Normal distributions with different values of σ and same μ .

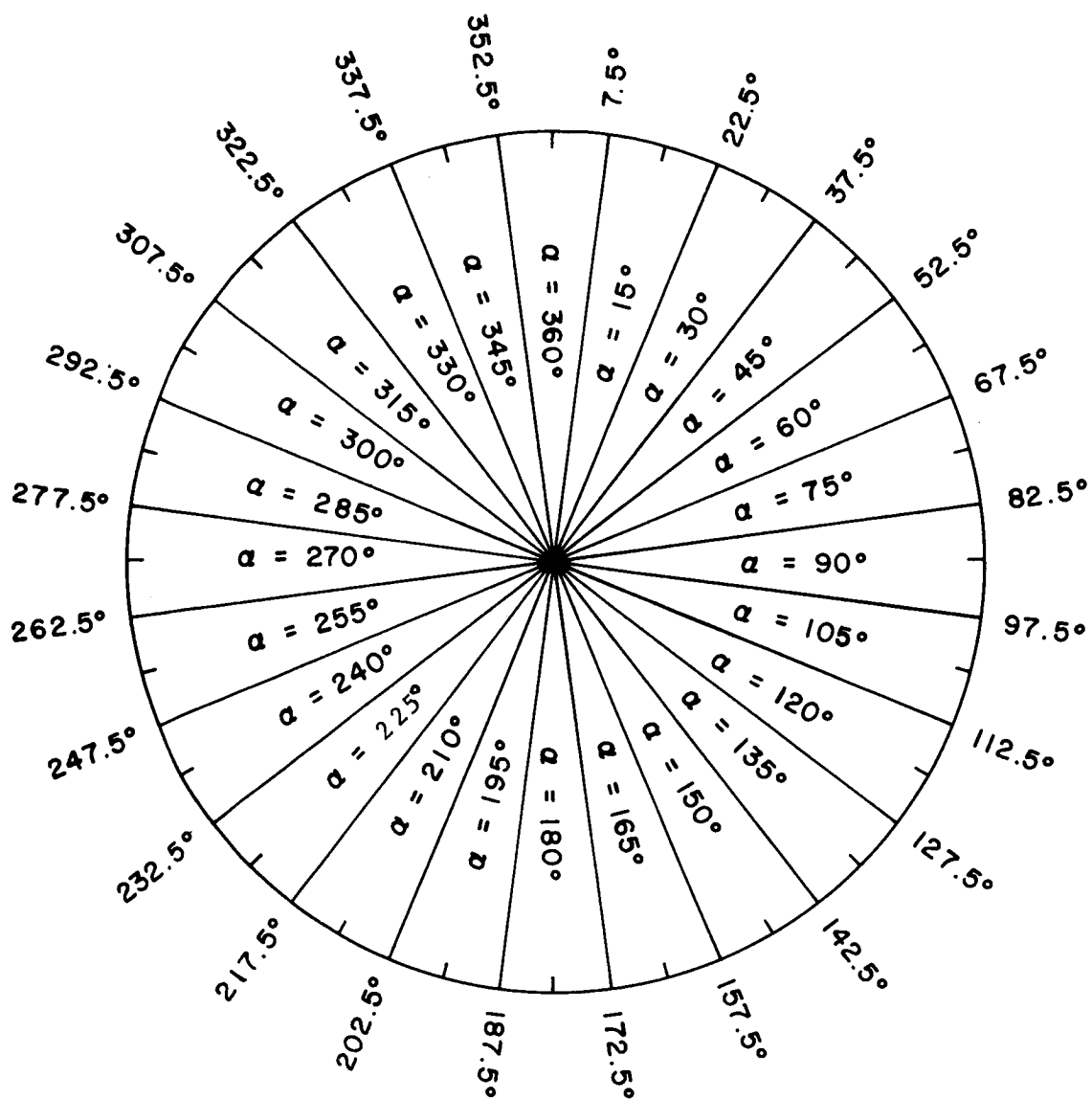
ANALYSIS

Two data samples were used in this analysis. The sample for altitudes 0 to 27 km consists of 12 years of serially complete radiosonde observations taken twice daily. The period of record is January 1, 1956, to December 31, 1967. The data sample for altitudes 28 to 70 km consists of all rocketsonde observations currently available. The period of record is January 1, 1960, to December 31, 1967.

Figure 3 shows the range of azimuths for which the tables in this document may be used. All data used in this study were recorded as vector winds (wind speed and corresponding direction). The vector winds were subsequently resolved into components along the azimuths $\alpha = 90$ degrees and $\alpha = 360$ degrees (true north).

The bivariate normal statistics for all months for the 90 degree flight azimuth ($\alpha = 90$ degrees) are given in Tables 1.1 through 1.12. For this flight azimuth, standard meteorological notation defines u as the zonal wind component and v as the meridional wind component. In this study, u is the headwind component while v is the crosswind component. The sample estimates of the theoretical mean μ are \bar{u} and \bar{v} . The sample estimates of the theoretical standard deviation σ are $S(u)$ and $S(v)$. $R(uv)$ is the sample estimate of the theoretical correlation coefficient between u and v . $S(uv)$ is the covariance of u and v . N is the sample size.

Available rocketsonde data above 60 km were considered to be too sparse to give valid representative statistics for this study. For this reason linear interpolations for the required statistics (Tables 1.1 through 1.12) were made from 60 km to estimates of the parameters at 70 km. The estimates of the means \bar{u} and \bar{v} at 70 km were made using the profile of strongest monthly 50th percentiles. This profile established a strongest monthly 50th percentile at 60 km and another at 70 km. Now, the means for each month were assumed to decrease with altitude at the same rate as these two means decreased with altitude. The monthly standard deviations $S(u)$ and $S(v)$ at 70 km were estimated by choosing the magnitudes of the standard deviations below 60 km that corresponded to the estimated values of the means at 70 km. For example, if the estimated mean at 70 km was 27 m/sec, then the standard deviation below 60 km that corresponds to a mean of 27 m/sec was used for the standard deviation at 70 km. The correlation coefficient $R(uv)$ above 60 km was assumed to be zero due to lack of data and the general trend of the correlation coefficient with increasing altitude appeared to be approaching zero.



(NOTE: IF THE DESIRED FLIGHT AZIMUTH FALLS ON A LINE OF SEPARATION, CHOOSE THE α TOWARDS THE E-W AXIS. DIRECTION AZIMUTHS ARE WITH REFERENCE TO TRUE NORTH.)

Figure 3. Range of azimuths for which the published values should be used without interpolation.

The five statistics \bar{u} , \bar{v} , $S(u)$, $S(v)$ and $R(uv)$ completely define a bivariate normal elliptical distribution. Using these five parameters at azimuth $\alpha = 90$ degrees, the statistics for any rotation of axes of the bivariate normal surface may be obtained [2]. This method was used to compute the means and standard deviations required for the normal distribution at the other required azimuths $\alpha = 30, 45, 60, 75$ and 105 degrees.

The Kolmogorov-Smirnov (KS) test was used to determine goodness of fit in this study for a number of reasons. This test is superior to the familiar Chi-Square (χ^2) test in several ways. When samples are of moderate size and adjacent categories must be combined before χ^2 may properly be computed, the χ^2 test is definitely less powerful than the KS test. For the χ^2 test, when adjacent categories must be combined, one is sometimes faced with the impossible problem of zero or negative degrees of freedom for the test, which means simply that no valid test exists. For very small samples, the χ^2 test is not appropriate at all, but the Kolmogorov-Smirnov test is. Siegel [3] states that "the Kolmogorov-Smirnov test may in all cases be more powerful than its alternative, the χ^2 test."

CONCLUSIONS

Care must be exercised in making decisions about which is a "best" model for a random variable. The question is not "Do the data come from some specified distribution?" because one can never be sure they do, but rather "Is some specified distribution a reasonable model for the description of the data?" If the physical constraints for the random variable are satisfied by a hypothetical distribution and after repeated sampling of this random variable it is found that the hypothetical distribution cannot be rejected by an appropriate statistical test, then one may reach the conclusion that this hypothetical distribution is an adequate model for the random variable under investigation.

Wind velocity components are variables that are unbounded at both ends. This constraint is satisfied by the normal distribution whose domain is from minus infinity to plus infinity. As mentioned previously, the use of the Gaussian model has many advantages. For example, if the wind components u and v are normally distributed, the scalar wind,

$$w = (u^2 + v^2)^{1/2},$$

has a noncentral chi distribution. From a theoretical point of view, this property of the normal distribution illustrates one of its many advantages as a statistical model to represent random variables.

The empirical wind component distributions for Cape Kennedy for all months for altitudes 0 to 70 km were tested using the Kolmogorov-Smirnov goodness-of-fit statistic to determine whether the normal distribution could be rejected as a reasonable model for the data. Results of tests on distributions above 60 km cannot be considered significant due to lack of data. It was found that approximately 85 percent of the distributions tested could not be rejected at the 5 percent rejection level (95 percent confidence level). Hence, one may reach the conclusion that the normal distribution provides an adequate model for wind components at Cape Kennedy, Florida.

TABLE 1.1. CAPE KENNEDY BIVARIATE NORMAL STATISTICS
90 DEGREE FLIGHT AZIMUTH
JANUARY

Alt (km)	\bar{u}	\bar{v}	S(u)	S(v)	S(uv)	R(uv)	N
0	.74	-.90	3.02	3.41	-2.31	-.2246	744
1	3.03	.91	7.01	6.45	.36	.0080	
2	7.37	1.23	7.03	6.60	3.30	.0711	
3	11.12	1.46	7.35	7.41	4.43	.0814	
4	14.64	1.86	8.05	8.05	7.99	.1233	
5	18.31	2.26	9.05	8.83	13.71	.1716	
6	22.07	2.89	9.71	9.74	18.50	.1956	
7	25.72	3.50	10.90	10.78	29.35	.2498	
8	29.26	3.84	11.87	11.84	36.33	.2585	
9	32.71	4.17	12.29	12.82	43.70	.2565	
10	36.41	4.65	14.63	13.47	59.34	.3011	
11	39.98	4.63	15.55	14.45	64.62	.2876	
12	42.39	4.71	14.95	14.34	62.66	.2723	
13	42.63	4.59	13.45	12.42	42.53	.2546	
14	40.61	3.95	12.18	10.79	36.82	.2302	
15	36.28	3.79	10.71	9.88	29.22	.2761	
16	31.11	3.44	9.23	8.43	18.65	.2397	
17	25.25	2.56	8.39	7.42	15.43	.2478	
18	18.75	1.89	7.84	5.90	13.35	.2887	
19	13.02	1.25	7.43	4.62	8.94	.2604	
20	8.70	.66	6.71	3.94	7.54	.2852	
21	6.25	.35	6.82	3.73	5.43	.2133	
22	4.97	.51	7.58	3.82	7.06	.2439	
23	4.29	.85	7.96	4.11	7.98	.2438	
24	4.35	1.00	8.81	4.01	8.33	.2375	
25	5.43	1.18	9.39	4.31	8.29	.2048	
26	6.87	1.43	11.25	4.78	11.60	.2157	
27	7.88	2.08	12.85	5.44	12.41	.1776	744
28	7.84	3.68	11.93	5.03	-5.73	-.0956	129
29	8.43	4.81	13.93	5.42	-10.92	-.1444	131
30	10.77	4.55	15.87	5.77	-11.77	-.1286	132
31	12.43	5.39	17.59	6.17	-17.07	-.1573	133
32	13.95	5.01	19.13	7.05	-17.11	-.1269	137
33	14.24	4.01	21.28	7.51	-16.17	-.1011	139
34	14.63	3.31	22.60	8.08	-13.90	-.1857	141
35	14.15	3.04	24.47	8.65	-38.98	-.1842	140
36	14.54	2.99	25.12	8.53	-45.70	-.2134	140
37	15.23	2.79	25.36	8.56	-26.61	-.1225	138
38	15.17	3.34	26.39	8.67	-14.39	-.0629	139
39	15.64	3.97	26.34	8.71	-20.10	-.0876	141
40	16.63	3.72	25.75	8.82	-13.00	-.0572	139
41	16.50	4.51	26.77	8.52	-9.42	-.0413	141
42	17.29	3.43	25.06	9.67	1.13	.0045	136
43	17.34	6.63	26.19	10.05	7.56	.0287	135
44	18.19	7.78	25.54	10.31	36.40	.1383	135
45	19.61	8.62	25.75	10.61	55.56	.2033	133
46	21.23	10.11	26.24	11.69	65.56	.2137	132
47	22.23	11.55	26.40	13.18	64.65	.1857	128
48	23.36	12.72	25.95	13.31	79.85	.2311	126
49	25.41	12.36	25.18	13.80	110.16	.3171	122
50	26.59	11.78	25.13	13.59	124.64	.3649	121
51	27.20	10.84	25.39	13.15	124.86	.3739	115
52	29.26	9.49	25.95	13.35	123.40	.3561	108
53	32.08	9.12	25.36	14.02	117.17	.3295	102
54	35.31	10.07	24.70	13.71	86.16	.2545	91
55	35.84	8.77	25.24	12.85	67.12	.2069	83
56	39.71	9.80	24.15	13.66	93.00	.2819	76
57	45.08	10.89	25.35	15.14	99.16	.2583	65
58	46.91	10.48	26.47	18.82	151.28	.2992	41
59	47.31	8.02	24.91	18.23	82.29	.1812	28
60	47.19	5.69	25.00	19.09	29.98	.0628	17
61	45.22	5.44	25.00	17.70	.00	.0000	9
62	43.25	5.19	25.00	16.20	.00	.0000	7
63	41.28	4.94	24.90	14.80	.00	.0000	6
64	39.31	4.69	24.90	13.30	.00	.0000	4
65	37.35	4.45	24.90	11.90	.00	.0000	3
66	35.38	4.20	24.90	10.40	.00	.0000	3
67	33.41	3.95	24.90	9.00	.00	.0000	3
68	31.43	3.78	24.80	7.50	.00	.0000	4
69	29.47	3.45	24.80	6.10	.00	.0000	4
70	27.50	3.20	24.80	4.60	.00	.0000	4

TABLE 1.2. CAPE KENNEDY BIVARIATE NORMAL STATISTICS
90 DEGREE FLIGHT AZIMUTH
FEBRUARY

Alt (km)	u	v	S(u)	S(v)	S(uv)	R(uv)	N
0	.45	-.09	3.45	3.74	-3.55	-.2751	678
1	3.65	2.35	7.26	6.54	-2.47	-.0520	
2	8.02	2.08	7.82	6.58	-1.97	-.0383	
3	11.81	2.40	9.41	7.29	-.10	.0016	
4	14.92	2.95	9.41	7.91	.27	.0029	
5	18.45	3.43	10.50	8.77	4.99	.0542	
6	22.34	4.08	11.50	9.32	17.51	.1634	
7	25.96	4.49	12.87	10.14	30.47	.2326	
8	29.58	4.67	14.41	11.11	42.60	.2661	
9	33.44	4.88	16.20	12.07	61.05	.3122	
10	36.89	4.76	17.19	13.32	75.15	.3282	
11	40.48	4.70	17.97	14.45	90.81	.3497	
12	43.16	4.82	17.44	14.33	85.37	.3416	
13	43.27	4.70	16.02	12.68	83.45	.4108	
14	40.23	4.23	13.75	11.25	59.09	.3820	
15	35.54	3.51	11.98	9.56	33.19	.2899	
16	30.66	3.13	10.52	8.79	21.93	.2470	
17	24.78	2.20	9.52	7.07	15.41	.2290	
18	18.46	1.43	8.67	5.82	15.97	.3165	
19	12.40	1.10	7.96	4.71	11.32	.3019	
20	7.13	.76	7.44	4.11	9.34	.3055	
21	4.02	.01	6.76	4.59	6.50	.2096	
22	2.46	-.45	6.99	4.10	3.84	.1239	
23	1.70	-.18	6.89	4.03	4.47	.1595	
24	1.82	-.02	7.10	3.83	3.59	.1321	
25	1.94	-.33	7.83	3.60	6.07	.2155	
26	2.52	-.26	8.49	3.79	4.75	.1476	
27	3.06	-.10	5.49	3.74	4.32	.1217	678
28	7.36	1.58	9.19	3.53	5.50	.1698	101
29	9.33	2.05	9.59	4.51	8.77	.2029	101
30	12.24	3.14	10.45	5.00	14.45	.2768	100
31	15.13	3.86	10.99	4.85	18.91	.3548	100
32	17.63	4.83	12.23	5.45	22.95	.3447	100
33	19.21	2.78	13.23	5.23	19.96	.2886	107
34	19.85	.54	13.49	5.53	14.20	.1903	113
35	20.18	-.04	13.25	6.99	18.91	.2042	119
36	21.19	-.07	14.21	6.53	21.10	.2274	121
37	21.90	-.32	15.11	6.34	14.93	.1560	124
38	23.12	-.61	15.97	6.46	12.07	.1169	126
39	24.02	-.78	16.48	7.48	5.88	.0477	128
40	24.79	-.48	17.31	8.06	8.82	.0632	128
41	26.32	.94	18.28	9.41	13.51	.0785	131
42	28.08	2.55	17.92	9.32	16.67	.0998	128
43	29.77	3.63	17.90	9.90	41.34	.2332	127
44	31.48	4.85	18.61	11.01	56.56	.2761	125
45	33.19	7.00	19.22	10.92	50.68	.2415	125
46	34.82	8.23	19.25	11.55	46.85	.2108	121
47	36.08	8.53	19.12	11.46	53.42	.2438	121
48	37.63	8.20	18.70	10.56	42.80	.2167	116
49	40.15	7.96	18.84	9.99	44.47	.2363	113
50	40.77	7.70	18.96	10.10	42.99	.2244	108
51	41.92	7.78	18.81	11.06	44.84	.2156	101
52	44.33	7.76	19.36	12.43	39.55	.1644	98
53	47.40	7.49	19.20	12.67	43.17	.1775	92
54	49.96	7.71	18.71	14.23	47.81	.1796	83
55	52.17	8.98	17.95	15.50	58.27	.2095	74
56	54.09	8.80	18.42	15.94	71.22	.2426	62
57	56.58	8.67	19.67	17.27	129.85	.3824	55
58	56.36	8.55	18.83	14.41	61.08	.2252	47
59	59.68	10.69	22.21	12.40	-35.65	-.1294	32
60	62.54	12.73	24.77	15.40	-118.61	-.3109	24
61	60.56	12.42	24.20	15.20	.00	.0000	15
62	58.57	12.10	23.60	14.90	.00	.0000	8
63	56.59	11.79	23.10	14.70	.00	.0000	4
64	54.60	11.48	22.50	14.40	.00	.0000	2
65	52.62	11.17	21.90	14.20	.00	.0000	1
66	50.64	10.85	21.30	14.00	.00	.0000	2
67	48.65	10.54	20.70	13.70	.00	.0000	1
68	46.67	10.23	20.20	13.50	.00	.0000	3
69	44.68	9.91	19.60	13.20	.00	.0000	3
70	42.70	9.60	19.00	13.00	.00	.0000	3

TABLE 1.3. CAPE KENNEDY BIVARIATE NORMAL STATISTICS

90 DEGREE FLIGHT AZIMUTH

MARCH

Alt (km)	\bar{u}	\bar{v}	S(u)	S(v)	S(uv)	R(uv)	N
0	.06	-.05	3.27	3.71	-2.41	-.1985	744
1	3.22	1.70	6.87	6.12	.60	.0142	
2	7.28	1.41	7.07	5.98	2.66	.0629	
3	10.73	1.34	7.39	6.52	4.88	.0936	
4	14.16	1.02	8.97	7.20	5.32	.0824	
5	17.95	.95	9.82	7.70	10.30	.1362	
6	21.77	1.30	10.44	8.49	15.43	.1763	
7	25.51	1.53	11.46	9.46	22.93	.2115	
8	29.07	1.64	12.47	10.12	27.93	.2212	
9	32.93	1.53	13.84	11.91	29.46	.1787	
10	36.77	1.45	15.22	13.40	27.00	.1318	
11	40.36	1.13	15.90	15.15	29.14	.1164	
12	43.75	1.25	15.47	14.59	34.40	.1524	
13	43.54	1.39	13.81	12.78	28.22	.1599	
14	40.37	1.17	12.35	10.25	14.08	.1111	
15	35.51	1.32	10.74	9.03	7.83	.0807	
16	30.22	1.19	9.43	7.78	2.05	.0281	
17	24.35	1.28	8.63	6.90	2.55	.0423	
18	17.71	.80	7.93	5.74	3.38	.0742	
19	11.05	.46	7.19	4.71	4.17	.1232	
20	5.30	.23	6.73	4.11	3.52	.1274	
21	3.10	-.11	6.25	3.79	2.12	.0394	
22	1.41	-.07	6.40	3.85	1.98	.0804	
23	-.03	-.20	6.34	3.71	2.07	.0379	
24	-.31	-.32	6.63	3.85	2.80	.1096	
25	.13	-.45	7.46	3.54	4.00	.1514	
26	1.01	-.54	8.13	3.42	4.12	.1481	
27	1.41	-.56	9.22	3.71	4.03	.1177	744
28	4.92	2.87	7.96	3.38	6.81	.2528	107
29	7.00	3.16	8.70	3.57	7.48	.2411	111
30	8.77	2.87	9.74	3.84	7.71	.2060	115
31	10.78	2.56	11.22	4.36	12.74	.2606	117
32	12.36	1.89	12.58	4.98	17.88	.2855	120
33	13.07	.89	13.79	5.10	10.48	.1490	122
34	13.68	.57	14.60	5.65	-3.33	-.0404	122
35	13.64	-.00	13.91	7.25	-14.64	-.1452	128
36	13.28	.17	13.41	7.27	-7.20	-.0739	128
37	13.50	.15	12.81	7.02	-4.73	-.0526	132
38	14.49	-.48	12.77	7.51	-9.50	-.0991	132
39	15.74	-.44	13.09	7.66	-7.55	-.0753	133
40	16.90	-.20	13.14	8.23	2.94	.0272	135
41	17.79	-.15	13.68	9.33	4.54	.0356	135
42	18.79	.65	13.90	9.15	10.40	.0818	135
43	19.86	1.84	13.87	8.70	17.95	.1488	133
44	21.21	2.98	14.25	8.21	18.64	.1592	132
45	22.37	3.75	14.17	7.71	12.75	.1167	130
46	23.98	4.46	13.71	7.75	11.59	.1090	129
47	25.42	5.53	13.57	7.74	13.65	.1301	126
48	27.60	5.49	13.44	7.49	14.91	.1480	125
49	29.66	6.28	13.14	8.26	17.81	.1641	123
50	31.41	6.27	13.37	7.95	17.41	.1638	120
51	33.39	5.90	13.14	8.14	18.67	.1745	115
52	35.18	5.49	12.51	8.63	26.18	.2425	112
53	36.45	4.27	13.37	8.34	45.87	.4114	102
54	37.39	3.89	13.45	8.52	42.96	.3748	95
55	38.53	3.84	15.16	8.68	48.83	.3710	84
56	39.63	4.70	14.57	7.23	13.27	.1259	73
57	40.81	5.94	14.53	7.71	-12.00	-.1072	61
58	42.26	5.64	15.58	10.16	-38.44	-.2429	50
59	43.87	8.99	15.14	10.82	-55.87	-.3199	38
60	45.20	13.74	17.52	11.83	-82.22	-.3966	24
61	43.34	13.40	17.10	11.70	.00	.0000	16
62	41.44	13.05	15.70	11.60	.00	.0000	11
63	39.62	12.71	16.30	11.60	.00	.0000	7
64	37.76	12.36	15.90	11.50	.00	.0000	5
65	35.90	12.02	15.50	11.40	.00	.0000	3
66	34.04	11.68	15.10	11.30	.00	.0000	2
67	32.18	11.33	14.70	11.20	.00	.0000	1
68	30.32	10.99	14.30	11.20	.00	.0000	1
69	28.46	10.64	13.90	11.10	.00	.0000	1
70	26.60	10.30	13.50	11.00	.00	.0000	1

TABLE 1.4. CAPE KENNEDY BIVARIATE NORMAL STATISTICS
90 DEGREE FLIGHT AZIMUTH

APRIL

Alt(km)	u	v	S(u)	S(v)	S(uv)	R(uv)	N
0	-1.07	.46	3.35	3.26	-1.76	-.1610	720
1	.99	1.20	6.74	5.40	-1.85	-.0507	
2	3.46	.19	7.28	5.24	2.15	.0564	
3	5.91	-.70	8.31	6.01	2.41	.0487	
4	8.44	-1.12	9.13	6.56	5.82	.0972	
5	11.03	-1.33	10.21	6.72	9.75	.1421	
6	13.75	-1.66	11.33	7.31	12.93	.1561	
7	15.60	-2.07	12.42	8.05	18.19	.1819	
8	19.58	-2.52	13.60	8.79	22.16	.1854	
9	22.32	-2.83	15.37	10.06	32.07	.2074	
10	25.32	-3.37	16.65	11.61	51.32	.2655	
11	28.59	-4.06	17.92	13.09	56.53	.2410	
12	31.73	-4.66	18.40	14.11	65.87	.2537	
13	37.71	-4.75	17.45	13.19	64.61	.2807	
14	31.89	-4.30	15.23	11.40	53.27	.3068	
15	23.03	-3.39	12.76	9.14	34.53	.2961	
16	22.98	-2.97	10.85	7.39	20.50	.2375	
17	17.35	-2.35	9.66	6.81	16.95	.2577	
18	11.01	-1.85	8.18	5.34	11.67	.2672	
19	5.39	-1.26	7.38	4.39	9.18	.2833	
20	1.80	-.86	6.36	4.05	6.06	.2352	
21	-.58	-.99	5.45	3.37	3.65	.1989	
22	-2.08	-.75	5.00	3.16	1.55	.0983	
23	-2.31	-.75	5.01	3.06	-.19	.0125	
24	-2.87	-.78	5.35	3.13	1.84	.1098	
25	-2.57	-.85	5.95	3.13	4.18	.2243	
26	-2.20	-.74	6.89	3.02	4.24	.2036	
27	-1.29	-.78	7.36	3.22	2.55	.1076	720
28	-.52	1.27	7.92	3.22	4.08	.1755	118
29	.52	1.43	8.49	3.17	5.13	.1904	119
30	1.82	1.43	9.01	3.67	6.35	.1922	123
31	3.01	1.43	9.33	3.80	7.40	.2089	126
32	3.71	.70	9.43	4.16	5.20	.1326	126
33	4.34	.41	9.50	4.00	15.06	.3964	129
34	5.09	-.66	9.98	4.94	15.38	.3123	130
35	5.25	-.96	10.49	5.28	8.04	.1453	131
36	5.47	-.89	9.94	6.06	-3.54	-.0588	133
37	5.31	-1.31	8.73	6.14	-3.93	-.0734	133
38	5.47	-1.48	8.89	6.63	-1.32	-.0224	135
39	4.83	-.44	9.22	6.74	-2.37	-.0381	133
40	5.44	-.58	9.97	6.44	-5.36	-.0834	133
41	5.81	.34	10.48	5.98	9.15	.1460	134
42	5.26	.37	11.02	5.93	6.58	.1006	133
43	5.22	1.47	11.66	6.26	5.68	.0778	133
44	5.50	2.51	12.09	7.05	11.00	.1384	132
45	5.92	3.57	12.88	6.84	15.25	.1730	131
46	7.27	4.76	13.99	7.42	16.52	.1592	128
47	8.43	4.21	14.55	7.74	12.65	.1123	126
48	9.36	3.51	14.86	7.44	20.36	.1841	124
49	9.90	3.02	15.40	7.18	10.68	.0966	124
50	9.99	3.52	16.02	6.66	9.22	.0864	121
51	10.31	4.08	16.71	6.22	10.95	.1053	121
52	10.42	4.12	16.42	6.45	-3.55	-.0335	118
53	11.10	3.88	16.03	6.40	.46	.0045	111
54	12.58	4.25	15.79	6.16	8.96	.0921	97
55	14.13	4.10	16.75	6.59	20.16	.1826	92
56	15.37	4.11	16.16	7.02	20.13	.1773	79
57	15.14	3.78	15.94	7.69	32.98	.2690	68
58	17.46	3.40	18.02	9.13	64.78	.4179	57
59	15.23	4.34	16.11	8.15	41.17	.3134	43
60	16.26	4.68	17.15	9.50	26.01	.1597	30
61	15.77	4.46	17.00	9.30	.00	.0000	17
62	15.23	4.24	16.90	9.00	.00	.0000	9
63	14.80	4.03	16.70	8.80	.00	.0000	4
64	14.32	3.81	16.60	8.50	.00	.0000	4
65	13.83	3.59	16.60	8.30	.00	.0000	2
66	13.34	3.37	16.40	8.10	.00	.0000	2
67	12.86	3.15	16.30	7.80	.00	.0000	2
68	12.37	2.94	16.20	7.60	.00	.0000	2
69	11.89	2.72	16.10	7.30	.00	.0000	2
70	11.40	2.50	16.00	7.10	.00	.0000	2

TABLE 1.5. CAPE KENNEDY BIVARIATE NORMAL STATISTICS
90 DEGREE FLIGHT AZIMUTH

MAY

Alt (km)	\bar{u}	\bar{v}	S(u)	S(v)	S(uv)	R(uv)	N
0	-1.62	.61	2.98	2.59	-.32	-.0421	744
1	-.71	.90	5.24	4.26	3.16	.1414	
2	-.56	-.30	5.62	4.55	7.50	.2933	
3	1.61	-.46	5.97	4.90	8.44	.2884	
4	2.76	-.52	6.48	5.46	9.28	.2623	
5	4.21	-.66	6.87	5.89	10.03	.2479	
6	5.67	-.82	7.41	6.69	11.78	.2275	
7	7.27	-.82	8.57	7.50	16.17	.2516	
8	8.82	-.62	3.92	9.57	18.81	.2461	
9	10.43	-.80	9.74	10.03	23.66	.2422	
10	12.26	-.35	11.15	11.50	34.39	.2582	
11	14.56	-1.25	12.33	13.07	48.01	.2979	
12	16.89	-1.66	13.51	14.27	61.33	.3181	
13	18.98	-2.82	17.90	14.02	65.15	.3343	
14	18.78	-3.15	12.13	12.14	54.40	.3679	
15	15.87	-3.55	9.97	9.67	39.00	.4062	
16	11.89	-3.47	3.32	7.57	22.76	.3613	
17	7.42	-3.10	6.86	6.04	13.98	.3374	
18	3.14	-2.50	5.79	4.72	6.98	.2553	
19	-.26	-1.60	4.82	3.69	2.93	.1643	
20	-2.58	-1.25	4.44	3.03	2.18	.1617	
21	-4.41	-.74	4.26	2.68	.37	.0324	
22	-5.62	-.68	4.23	2.80	-.67	-.0557	
23	-6.44	-.48	4.30	2.75	-.36	-.0322	
24	-6.94	-.45	4.67	2.84	.35	.0262	
25	-7.11	-.61	5.11	2.96	.11	.0070	
26	-7.15	-.58	5.55	3.02	-.52	-.0310	
27	-6.87	-.64	6.03	3.06	-.23	-.0122	744
28	-6.88	.54	7.09	2.83	-.03	-.0015	124
29	-6.21	.82	7.70	3.29	-1.27	-.0449	126
30	-6.00	.84	8.34	3.61	1.90	.0630	126
31	-5.01	.51	8.41	3.78	-.59	-.0186	128
32	-4.19	.92	8.33	4.03	-.06	-.0017	131
33	-3.87	.44	8.07	4.60	1.66	.0448	133
34	-3.76	.02	8.68	4.39	2.32	.0608	134
35	-4.31	-.39	8.94	4.84	2.65	.0612	134
36	-5.26	-.80	9.33	4.68	5.26	.1204	134
37	-6.29	-.12	9.21	4.81	-4.63	-.1047	135
38	-6.71	.36	8.50	4.65	-7.85	-.1988	133
39	-7.67	.35	8.24	4.65	-4.44	-.1160	133
40	-9.14	-.17	7.80	4.99	-3.85	-.0998	136
41	-10.81	-.13	7.67	5.14	-.37	-.0093	137
42	-11.94	.90	8.30	4.59	4.05	.1062	137
43	-12.98	1.79	8.58	5.54	10.21	.2147	134
44	-13.96	2.12	9.09	5.33	1.98	.0408	133
45	-14.57	2.44	9.27	5.86	-2.37	-.0436	132
46	-15.42	2.66	9.56	6.20	-4.19	-.0707	128
47	-16.14	3.65	9.58	6.43	3.10	.0503	127
48	-16.96	3.26	9.41	6.75	3.86	.0608	126
49	-18.38	3.06	9.61	7.05	2.81	.0415	124
50	-19.83	4.18	9.78	7.00	4.90	.0715	118
51	-19.82	4.65	10.61	7.12	5.10	.0675	116
52	-19.76	4.41	11.82	7.50	1.50	.0169	111
53	-20.13	4.57	11.57	7.90	-2.06	-.0225	106
54	-19.97	4.97	11.25	7.84	9.51	.1078	101
55	-20.00	4.57	11.61	7.79	13.41	.1483	90
56	-20.10	4.30	12.52	8.53	10.33	.0967	82
57	-19.72	4.62	13.11	10.52	.18	.0013	72
58	-21.06	3.55	16.24	11.42	14.22	.0767	53
59	-19.59	2.53	14.72	11.05	14.47	.0889	42
60	-19.03	2.42	19.41	12.95	48.57	.1932	26
61	-18.48	2.37	18.30	12.20	.00	.0000	14
62	-17.92	2.32	17.30	11.40	.00	.0000	11
63	-17.37	2.26	16.30	10.70	.00	.0000	2
64	-16.82	2.21	15.20	9.90	.00	.0000	2
65	-16.27	2.16	14.20	9.20	.00	.0000	1
66	-15.71	2.11	13.20	8.40	.00	.0000	1
67	-15.16	2.06	12.10	7.60	.00	.0000	1
68	-14.61	2.00	11.10	6.90	.00	.0000	1
69	-14.05	1.95	10.00	6.20	.00	.0000	1
70	-13.50	1.90	9.00	5.40	.00	.0000	1

TABLE 1.6. CAPE KENNEDY BIVARIATE NORMAL STATISTICS
90 DEGREE FLIGHT AZIMUTH

JUNE

Alt (km)	U	V	S(u)	S(v)	S(uv)	R(uv)	N
0	-1.10	.29	2.70	2.47	-.06	-.0084	720
1	.22	1.63	4.37	3.83	4.67	.2453	
2	1.13	1.17	4.32	3.35	4.36	.2243	
3	1.98	.95	4.81	4.04	2.93	.1510	
4	2.33	.76	4.96	4.20	2.74	.1317	
5	2.63	.42	5.17	4.31	2.27	.1020	
6	2.30	-.02	5.51	4.55	3.37	.1517	
7	3.42	-.10	6.33	4.96	5.82	.1653	
8	3.38	-.25	7.04	5.63	7.33	.2016	
9	4.66	-.21	8.17	6.66	11.83	.2174	
10	5.28	-.50	9.51	7.97	16.96	.2233	
11	6.02	-.88	10.88	9.27	25.66	.2485	
12	7.14	-1.73	12.41	10.30	37.23	.2778	
13	7.91	-3.03	13.18	11.09	41.22	.2820	
14	7.01	-4.33	12.13	9.57	30.87	.2646	
15	4.54	-5.15	10.01	7.26	13.56	.1866	
16	1.42	-4.31	7.31	5.33	6.35	.1784	
17	-1.47	-3.09	5.41	4.10	3.16	.1423	
18	-4.31	-2.18	4.33	3.19	1.44	.1039	
19	-6.72	-1.26	3.76	2.81	1.47	.1388	
20	-3.66	-.98	3.96	2.64	1.43	.1456	
21	-10.07	-.61	3.89	2.63	-.84	-.0819	
22	-11.41	-.44	3.72	3.05	-1.20	-.1055	
23	-12.54	-.40	3.80	2.98	-.76	-.0659	
24	-13.27	-.42	4.13	2.71	-.33	-.0294	
25	-13.97	-.61	4.48	2.69	-.44	-.0368	
26	-14.31	-.69	4.74	2.90	-.87	-.0630	
27	-14.58	-.83	5.17	2.88	-.87	-.0582	720
28	-14.99	-.26	5.89	2.74	-1.57	-.0971	111
29	-14.98	.25	5.66	2.90	-2.97	-.1810	112
30	-15.17	.75	5.62	2.99	-2.39	-.1425	115
31	-15.49	1.14	6.08	2.92	-.75	-.0421	116
32	-15.34	1.15	6.21	3.74	1.67	.0720	117
33	-15.70	.81	6.50	3.16	2.21	.1074	117
34	-16.73	.44	7.59	3.43	1.96	.0754	118
35	-17.52	.07	7.24	3.62	1.19	.0454	119
36	-19.18	-.13	6.81	4.20	-3.68	-.1285	119
37	-20.87	.47	6.58	4.41	-2.78	-.0959	118
38	-22.00	.64	6.65	4.67	-1.79	-.0575	118
39	-23.66	.58	6.75	4.78	1.56	.0482	118
40	-25.20	-.03	6.36	4.82	3.65	.1190	118
41	-27.17	-.39	6.93	5.19	4.57	.1270	118
42	-28.90	-.07	6.97	4.62	-.81	-.0253	117
43	-31.19	.57	6.85	4.85	-3.54	-.1065	117
44	-33.23	2.09	6.68	5.14	-5.08	-.1482	117
45	-34.33	2.98	6.92	5.81	-5.34	-.1328	117
46	-35.64	3.82	7.30	6.34	-3.61	-.0780	115
47	-37.14	4.75	8.01	6.56	.81	.0155	114
48	-38.77	5.75	7.79	7.08	1.88	.0342	108
49	-40.13	6.58	8.96	7.68	4.24	.0616	107
50	-39.17	7.11	8.84	7.67	.72	.0106	99
51	-39.70	7.24	10.17	7.55	2.39	.0311	96
52	-40.45	6.67	10.12	7.27	-10.55	-.1434	87
53	-41.38	6.15	11.00	7.46	-19.59	-.2388	82
54	-42.16	5.30	9.98	8.01	-9.71	-.1214	80
55	-42.88	4.66	10.35	8.61	-1.69	-.0190	77
56	-43.61	4.12	9.42	9.07	1.20	.0141	73
57	-41.23	3.97	12.24	9.42	-9.15	-.0794	69
58	-41.73	2.78	15.13	9.71	10.09	.0687	57
59	-41.92	1.25	15.52	9.45	-31.08	-.2120	45
60	-44.13	.63	14.44	11.77	50.56	.2976	34
61	-42.24	.63	13.60	11.00	.00	.0000	25
62	-40.34	.61	12.80	10.30	.00	.0000	15
63	-38.45	.60	12.00	9.50	.00	.0000	7
64	-36.56	.58	11.20	8.80	.00	.0000	3
65	-34.67	.57	10.40	8.10	.00	.0000	2
66	-32.77	.56	9.60	7.40	.00	.0000	1
67	-30.88	.54	8.80	6.70	.00	.0000	1
68	-28.99	.53	8.00	5.90	.00	.0000	1
69	-27.09	.51	7.20	5.20	.00	.0000	0
70	-25.20	.50	6.40	4.50	.00	.0000	0

TABLE 1.7. CAPE KENNEDY BIVARIATE NORMAL STATISTICS
90 DEGREE FLIGHT AZIMUTH

JULY

Alt(km)	\bar{u}	\bar{v}	S(u)	S(v)	S(uv)	R(uv)	N
0	-0.62	1.53	2.41	1.31	-0.64	-0.1389	744
1	0.94	2.24	4.49	3.36	-0.26	-0.0175	
2	1.39	1.95	4.52	3.42	1.32	0.0855	
3	1.58	1.06	4.55	3.43	1.62	0.1039	
4	1.56	1.43	4.70	3.70	1.15	0.0659	
5	1.33	0.59	4.78	3.82	0.27	0.0146	
6	0.95	0.61	4.38	4.14	-0.23	-0.0113	
7	0.37	0.22	4.07	4.34	0.88	0.0409	
8	-0.06	-0.24	5.41	4.71	3.42	0.1242	
9	-0.64	-0.84	6.33	5.44	8.30	0.2411	
10	-1.05	-1.49	7.20	6.18	13.60	0.3057	
11	-1.53	-2.24	8.30	6.88	18.27	0.3200	
12	-2.25	-3.13	9.36	7.49	20.15	0.2976	
13	-3.10	-4.48	9.97	7.99	18.08	0.2382	
14	-3.78	-5.01	9.63	7.28	14.27	0.2055	
15	-4.09	-4.23	6.46	5.70	9.58	0.2565	
16	-5.32	-2.95	4.70	4.27	5.91	0.2945	
17	-6.41	-2.08	3.50	3.44	2.52	0.2074	
18	-8.37	-1.19	2.98	2.89	0.33	0.0343	
19	-10.61	-0.50	2.87	2.71	1.20	0.1677	
20	-13.01	-0.32	3.54	2.41	0.72	0.0441	
21	-14.98	-0.48	3.55	2.79	-2.00	-0.1985	
22	-16.43	-0.28	3.35	3.20	-1.77	-0.1655	
23	-17.53	-0.26	3.42	3.17	-0.16	-0.0144	
24	-18.62	-0.31	3.56	2.84	-0.39	-0.0383	
25	-19.40	-0.58	3.92	2.77	0.26	0.0241	
26	-19.98	-0.66	4.47	2.96	-0.33	-0.0705	
27	-20.34	-0.81	4.87	3.17	-0.30	-0.0186	744
28	-20.73	-1.42	4.32	3.06	-0.45	-0.0338	121
29	-21.88	-0.43	4.43	2.88	-0.81	-0.0636	124
30	-22.64	0.21	4.55	3.38	-1.52	-0.0990	128
31	-22.85	0.65	4.84	3.43	0.01	0.0005	129
32	-23.34	1.28	4.97	3.53	0.09	0.0050	130
33	-23.63	1.28	5.24	3.72	-3.20	-0.1639	134
34	-24.52	0.94	5.49	3.92	-2.97	-0.1374	138
35	-26.34	1.03	5.90	4.19	-3.49	-0.1412	139
36	-27.55	0.84	5.39	4.21	-1.77	-0.0782	139
37	-28.98	0.08	5.13	4.83	0.33	0.0133	139
38	-30.31	0.45	8.13	5.02	0.16	0.0039	141
39	-31.89	0.69	5.99	5.46	1.77	0.0540	142
40	-33.99	0.14	6.09	5.34	5.59	0.1722	142
41	-35.44	-0.30	6.21	5.77	-2.22	-0.0620	142
42	-37.27	-0.37	6.57	5.15	0.25	0.0074	141
43	-39.94	-0.32	6.67	5.48	-2.48	-0.0680	141
44	-42.28	0.70	6.93	6.14	-1.35	-0.0318	139
45	-44.10	2.36	7.35	6.85	-9.85	-0.1957	138
46	-45.96	3.65	7.51	7.10	-4.12	-0.0774	136
47	-47.36	4.49	8.33	6.67	-5.82	-0.1047	135
48	-47.88	5.33	8.01	7.33	-6.49	-0.1105	133
49	-48.85	6.13	7.34	7.80	-2.64	-0.0461	131
50	-49.34	6.57	7.83	7.98	3.58	0.0573	129
51	-49.63	6.28	8.96	7.73	3.00	0.0433	126
52	-49.61	5.94	10.15	8.23	-2.69	-0.0322	124
53	-49.12	5.99	11.22	9.27	-0.49	-0.0047	119
54	-49.03	5.60	11.06	9.74	-14.07	-0.1306	113
55	-48.70	5.81	12.22	10.64	-26.77	-0.2060	104
56	-47.33	5.68	13.06	11.77	-22.51	-0.1464	98
57	-48.22	5.29	13.39	11.61	-23.32	-0.1499	88
58	-47.01	3.73	14.34	10.10	-25.33	-0.1748	77
59	-45.59	3.37	15.18	11.14	-23.83	-0.1409	66
60	-47.15	3.05	17.42	12.52	-60.11	-0.2755	50
61	-45.12	2.97	16.20	11.90	0.00	0.0000	30
62	-43.08	2.88	15.00	11.30	0.00	0.0000	21
63	-41.05	2.80	13.90	10.70	0.00	0.0000	12
64	-39.01	2.71	12.70	10.10	0.00	0.0000	9
65	-36.98	2.63	11.50	9.60	0.00	0.0000	9
66	-34.94	2.54	10.30	9.00	0.00	0.0000	5
67	-32.91	2.46	9.10	8.40	0.00	0.0000	4
68	-30.87	2.37	8.00	7.90	0.00	0.0000	5
69	-28.84	2.29	6.80	7.20	0.00	0.0000	5
70	-26.80	2.20	5.60	6.60	0.03	0.0000	5

TABLE 1.8. CAPE KENNEDY BIVARIATE NORMAL STATISTICS
90 DEGREE FLIGHT AZIMUTH
AUGUST

Alt (km)	U	V	S(u)	S(v)	S(uv)	R(uv)	N
0	-.57	.66	2.21	2.03	.23	.0522	744
1	-.19	1.49	4.42	3.46	2.02	.1323	
2	.65	1.35	4.38	3.45	3.65	.2414	
3	.87	1.22	4.54	3.53	3.66	.2281	
4	.99	1.32	4.63	3.67	4.12	.2396	
5	1.02	1.15	4.33	4.02	4.59	.2290	
6	.68	.68	5.09	4.26	5.93	.2776	
7	.34	.73	5.11	4.64	7.03	.2963	
8	.03	-.18	5.34	4.97	7.37	.2776	
9	-.22	-.56	5.80	5.54	10.74	.3341	
10	-.25	-1.05	6.72	6.72	18.20	.4030	
11	-.48	-1.41	7.30	7.69	24.25	.4043	
12	-.71	-2.08	6.75	8.57	23.07	.3876	
13	-.90	-3.05	9.04	3.72	29.12	.3694	
14	-1.44	-3.41	8.08	7.33	23.27	.3929	
15	-2.42	-2.53	6.22	5.12	11.21	.3520	
16	-3.66	-1.60	4.54	3.86	5.20	.3305	
17	-5.67	-.97	3.68	3.17	2.56	.2191	
18	-7.90	-.63	3.11	2.87	.61	.0682	
19	-10.45	-.56	3.13	2.58	1.61	.1958	
20	-12.96	-.43	3.50	2.36	.66	.0798	
21	-14.78	-.27	3.43	2.46	-.41	-.0484	
22	-16.28	-.18	2.34	2.74	-1.00	-.1097	
23	-17.28	-.09	3.42	2.90	.51	.0510	
24	-18.21	-.13	3.68	2.79	.66	.0644	
25	-19.11	-.35	3.83	2.69	-.22	-.0214	
26	-19.56	-.78	4.21	2.77	-.61	-.0522	
27	-20.29	-1.10	4.45	2.89	-.27	-.0208	744
28	-20.68	-.36	3.89	2.89	1.13	.1006	130
29	-21.71	-.43	3.87	3.68	-.12	-.0084	133
30	-22.19	.24	4.20	3.48	-.89	-.0610	133
31	-22.74	.99	4.49	3.98	.95	.0532	135
32	-22.57	1.43	4.97	4.29	-2.31	-.1082	135
33	-22.53	1.31	5.01	3.78	-.32	-.0171	135
34	-22.92	1.22	5.33	5.03	-.66	-.0247	137
35	-23.74	.41	6.31	4.90	-1.07	-.0345	138
36	-24.33	.81	7.35	4.81	.70	.0199	138
37	-25.33	.57	7.24	5.31	4.79	.1245	140
38	-25.96	1.33	8.00	5.42	-5.59	-.1288	140
39	-26.31	.99	7.73	5.09	-.27	-.0069	140
40	-27.35	.06	8.39	5.21	-5.12	-.1172	139
41	-28.68	-.52	7.75	5.64	-7.44	-.1701	137
42	-29.76	-.32	8.96	5.80	-4.63	-.0892	137
43	-31.96	.63	8.89	6.31	9.40	.1676	137
44	-32.81	1.72	10.86	6.76	3.53	.0481	135
45	-34.27	2.61	10.64	6.78	-2.88	-.0399	134
46	-34.62	3.74	10.98	7.40	-8.86	-.1091	133
47	-34.96	4.61	11.42	8.03	-26.20	-.2856	130
48	-34.69	4.65	10.79	7.89	-13.31	-.1564	130
49	-33.86	4.11	10.72	8.09	-6.77	-.0781	128
50	-33.51	4.09	11.00	9.29	1.57	.0154	125
51	-33.57	4.88	12.03	9.11	3.34	.0305	124
52	-33.06	5.55	12.32	9.63	16.29	.1373	117
53	-31.03	5.29	13.07	10.61	26.21	.1891	116
54	-29.46	5.30	15.65	10.82	32.79	.1937	110
55	-27.63	5.25	16.72	10.89	1.80	.0099	99
56	-24.37	4.46	18.03	10.47	16.95	.0898	90
57	-22.83	3.85	18.29	11.78	11.08	.0514	76
58	-21.00	4.23	20.27	12.75	-22.46	-.0869	63
59	-14.71	6.56	21.85	12.90	-5.21	-.0185	48
60	-15.65	9.41	21.20	14.96	-41.69	-.1314	34
61	-15.20	9.17	19.40	14.70	.00	.0000	34
62	-14.75	8.93	17.70	14.50	.00	.0000	25
63	-14.29	8.69	15.90	14.30	.00	.0000	19
64	-13.84	8.45	14.10	14.10	.00	.0000	10
65	-13.38	8.21	12.40	14.00	.00	.0000	8
66	-12.92	7.96	10.60	13.80	.00	.0000	7
67	-12.47	7.72	8.80	13.60	.00	.0000	6
68	-12.01	7.48	7.00	13.40	.00	.0000	5
69	-11.56	7.24	5.30	13.20	.00	.0000	4
70	-11.10	7.00	3.50	13.00	.00	.0000	4

TABLE 1.9. CAPE KENNEDY BIVARIATE NORMAL STATISTICS
90 DEGREE FLIGHT AZIMUTH

SEPTEMBER

Alt (km)	\bar{u}	\bar{v}	S (u)	S (v)	S (uv)	R (uv)	N
0	-1.63	-.23	2.92	2.88	1.97	.2346	720
1	-2.06	.40	5.97	5.26	8.60	.2794	
2	-.68	.49	6.20	5.05	3.35	.2967	
3	.25	.61	6.16	4.89	3.43	.2733	
4	.81	.62	6.12	4.82	9.22	.3127	
5	1.06	.42	5.30	5.10	10.82	.3367	
6	1.23	.20	6.42	5.40	11.35	.3237	
7	1.60	.24	5.93	5.91	15.13	.3760	
8	2.19	.11	7.32	6.52	20.74	.4345	
9	3.13	.10	7.83	7.14	25.47	.4527	
10	4.08	-.22	8.80	3.09	30.66	.4366	
11	4.92	-.63	3.73	3.06	35.54	.4011	
12	5.98	-1.22	10.37	9.96	36.04	.3489	
13	6.15	-1.32	10.35	10.49	35.26	.3295	
14	4.93	-2.43	10.15	9.81	26.07	.2614	
15	2.57	-2.27	4.52	7.57	14.41	.2234	
16	.10	-1.90	6.70	5.37	11.24	.3124	
17	-1.90	-1.10	5.52	3.86	4.39	.2054	
18	-3.91	-.72	4.62	3.15	3.01	.2067	
19	-6.13	-.63	4.03	2.64	2.07	.1913	
20	-8.13	-.46	4.00	2.40	1.34	.1397	
21	-9.72	-.22	3.62	2.52	.43	.0031	
22	-10.95	-.25	3.51	2.51	-.06	-.0003	
23	-11.30	-.27	3.67	2.43	.26	.0004	
24	-12.32	-.49	3.84	2.59	.69	.0084	
25	-12.90	-.70	4.15	2.82	.60	.0014	
26	-13.10	-.96	4.61	2.67	.87	.0076	
27	-13.23	-1.05	5.05	3.02	-.81	-.0031	720
28	-12.66	-.34	4.73	3.45	4.31	.2644	121
29	-13.05	-.09	5.18	3.38	2.91	.1662	123
30	-12.40	.17	5.25	3.88	-.87	-.0027	124
31	-12.23	1.17	5.65	3.68	1.41	.0679	125
32	-11.96	1.50	5.71	4.29	.30	.0121	124
33	-11.46	1.75	6.18	3.97	2.50	.1018	125
34	-10.38	1.39	6.89	3.93	-.79	-.0292	125
35	-9.72	1.15	7.41	4.53	-1.92	-.0573	124
36	-9.57	.85	7.23	4.87	-.94	-.1403	124
37	-9.81	.65	7.66	5.05	1.18	.0305	123
38	-10.37	.45	7.90	5.10	.44	.0110	122
39	-10.49	.73	7.85	5.61	-3.31	-.0751	122
40	-10.16	.69	8.16	6.14	.59	.0117	122
41	-9.90	-.04	9.41	6.67	3.54	.0564	117
42	-10.40	-.66	9.69	7.19	-.18	-.0026	117
43	-12.20	.19	10.89	7.44	4.23	.0522	115
44	-11.61	1.60	10.40	8.05	-5.93	-.0709	114
45	-10.02	1.97	10.01	7.65	-15.26	-.1992	110
46	-8.93	3.34	9.20	8.14	-8.36	-.1189	108
47	-8.33	3.92	9.89	6.88	-5.29	-.0777	100
48	-8.27	3.82	10.03	6.44	-4.34	-.0668	99
49	-7.37	4.73	9.90	6.78	-1.03	-.0153	97
50	-5.20	4.84	10.54	6.89	-.35	-.0044	95
51	-5.29	4.63	11.93	7.29	5.00	.0585	90
52	-6.36	5.17	12.39	7.35	.92	.0101	80
53	-5.33	6.27	13.22	7.31	8.00	.0828	74
54	-2.72	6.48	13.57	8.23	7.51	.0672	71
55	-1.14	5.80	13.86	9.03	.85	.0068	68
56	-1.27	6.21	13.43	9.07	-7.75	-.0637	57
57	-.42	6.74	13.63	8.39	-29.20	-.2553	48
58	3.72	8.68	14.36	8.35	-47.26	-.3943	41
59	3.47	8.61	12.88	7.59	-18.72	-.1915	30
60	6.69	5.83	17.72	8.31	-7.02	-.0477	22
61	6.39	5.67	17.40	8.10	.00	.0000	17
62	6.09	5.49	17.00	7.90	.00	.0000	15
63	5.79	5.32	16.70	7.80	.00	.0000	13
64	5.49	5.14	16.30	7.60	.00	.0000	5
65	5.20	4.97	16.00	7.40	.00	.0000	2
66	4.90	4.80	15.70	7.20	.00	.0000	1
67	4.60	4.62	15.30	7.00	.00	.0000	1
68	4.30	4.45	15.00	6.90	.00	.0000	1
69	4.00	4.27	14.60	6.70	.00	.0000	1
70	3.70	4.10	14.30	6.50	.00	.0000	1

TABLE 1.10. CAPE KENNEDY BIVARIATE NORMAL STATISTICS
90 DEGREE FLIGHT AZIMUTH
OCTOBER

Alt (km)	u	v	S (u)	S (v)	S (uv)	R (uv)	N
0	-0.95	-1.34	3.20	3.00	.33	.0349	744
1	-1.56	-1.42	5.89	5.04	6.97	.2349	
2	.30	-.40	6.14	4.83	9.10	.2732	
3	2.74	.68	6.28	4.97	6.83	.2187	
4	4.35	.23	6.53	5.25	6.88	.2008	
5	6.05	.27	6.97	5.30	10.82	.2630	
6	7.30	.41	7.61	6.64	13.46	.2664	
7	9.62	.44	9.65	7.58	16.41	.2503	
8	12.18	.53	9.70	9.62	19.05	.2274	
9	14.59	.78	11.17	10.09	23.51	.2086	
10	16.35	1.08	12.43	11.94	28.80	.1931	
11	19.12	.96	17.53	13.57	29.14	.1580	
12	20.64	.63	13.67	14.35	32.15	.1639	
13	20.70	-.15	10.27	13.10	71.88	.1832	
14	19.30	-.77	12.00	10.72	23.56	.1822	
15	18.69	-.69	10.11	8.42	16.51	.1940	
16	11.33	-.66	9.20	6.53	11.50	.2149	
17	6.84	-.32	6.89	4.76	7.91	.2412	
18	3.00	-.42	5.73	3.69	5.30	.2799	
19	.06	-.46	4.97	3.18	3.67	.2325	
20	-1.78	-.23	4.54	2.92	2.36	.1781	
21	-2.77	-.44	4.30	2.76	2.08	.1700	
22	-3.42	-.62	4.22	2.86	.76	.0245	
23	-3.88	-.55	4.54	2.78	.96	.0763	
24	-3.10	-.45	4.86	2.83	.63	.0503	
25	-3.37	-.51	5.13	2.95	.85	.0561	
26	-2.56	-.71	5.77	3.07	2.21	.1246	
27	-1.61	-.89	6.25	3.21	2.36	.1177	744
28	-.96	1.17	6.02	3.56	4.74	.2209	120
29	.42	1.10	6.62	4.08	6.57	.2433	124
30	2.09	1.02	7.61	3.77	7.43	.2591	126
31	3.28	1.42	8.54	4.02	5.06	.1472	127
32	5.44	1.66	9.59	4.12	2.42	.0612	131
33	6.14	1.57	10.67	4.75	.33	.0065	131
34	11.21	.50	11.60	4.60	-2.70	-.0506	131
35	13.29	-.37	12.81	5.61	11.44	.1592	131
36	14.77	-.89	14.45	5.39	16.30	.2093	132
37	15.82	-.35	16.11	5.27	17.20	.2024	131
38	17.73	-.34	17.04	6.11	23.81	.2289	131
39	20.30	.73	18.22	5.75	14.81	.1413	134
40	22.80	1.30	18.44	5.61	15.87	.1534	135
41	23.90	1.53	18.75	6.14	7.64	.0663	134
42	25.38	2.27	19.49	6.71	19.43	.1486	137
43	26.29	2.38	19.77	6.55	11.95	.0923	138
44	27.35	3.69	19.28	7.23	29.76	.2136	135
45	29.25	4.50	19.64	7.04	39.81	.2878	133
46	30.85	5.43	19.57	7.89	43.31	.2804	134
47	32.47	6.15	19.92	8.59	41.47	.2423	132
48	34.28	7.04	19.63	8.91	51.64	.2945	130
49	36.34	7.57	20.03	10.04	75.43	.3750	127
50	38.41	7.35	19.79	9.45	84.80	.4533	124
51	38.30	7.64	20.23	9.11	92.72	.5032	118
52	40.58	8.13	19.99	9.23	89.04	.4828	114
53	41.38	7.86	19.51	8.79	73.21	.4266	106
54	42.78	7.75	19.23	8.54	71.89	.4378	99
55	42.63	6.67	19.81	8.51	68.45	.4063	92
56	42.86	5.88	20.36	8.29	73.16	.4335	81
57	43.93	4.64	21.14	9.27	63.70	.3250	71
58	42.51	4.29	21.55	10.45	41.17	.1828	64
59	41.54	4.65	20.48	10.92	22.90	.1024	53
60	39.73	2.65	21.58	11.31	9.25	.0379	45
61	37.94	2.61	21.20	10.80	.00	.0000	31
62	36.14	2.56	20.90	10.40	.00	.0000	14
63	34.35	2.52	20.50	9.90	.00	.0000	7
64	32.56	2.47	20.20	9.40	.00	.0000	5
65	30.77	2.43	19.90	9.00	.00	.0000	2
66	28.97	2.38	19.60	8.50	.00	.0000	1
67	27.18	2.34	19.30	8.00	.00	.0000	1
68	25.39	2.29	18.90	7.50	.00	.0000	1
69	23.59	2.25	18.60	7.10	.00	.0000	1
70	21.80	2.20	18.30	6.60	.00	.0000	1

TABLE 1.11. CAPE KENNEDY BIVARIATE NORMAL STATISTICS
90 DEGREE FLIGHT AZIMUTH

NOVEMBER

Alt (km)	\bar{u}	\bar{v}	S (u)	S (v)	S (uv)	R (uv)	N
0	-1.12	-1.10	0.32	2.25	-1.63	-1.1944	720
1	-1.32	-1.73	0.76	5.37	6.55	.1905	
2	2.34	-1.22	7.10	5.26	7.02	.2014	
3	4.34	-1.35	7.43	5.42	7.94	.1352	
4	7.26	-1.48	7.74	5.95	0.79	.2039	
5	9.85	-1.53	8.43	6.60	13.30	.2357	
6	12.63	-1.57	9.78	7.66	10.40	.2709	
7	15.42	-1.61	9.30	3.37	24.34	.2303	
8	18.31	-1.65	10.22	10.26	32.50	.2309	
9	21.28	-1.74	11.25	11.63	46.21	.3393	
10	24.12	-1.86	12.21	13.33	50.14	.3756	
11	26.33	-1.10	13.71	14.89	76.84	.3724	
12	29.02	-1.43	14.10	15.45	37.70	.4020	
13	29.30	-1.34	17.26	14.15	69.52	.3705	
14	27.26	-1.44	11.30	11.93	49.35	.3500	
15	21.46	-1.14	7.31	5.67	32.17	.3091	
16	19.02	-1.14	0.40	7.95	19.35	.2740	
17	14.77	-1.33	7.35	5.67	7.47	.1573	
18	9.64	-1.70	6.51	5.10	4.42	.1320	
19	6.16	-1.44	5.67	4.12	3.41	.1461	
20	4.65	-1.27	5.37	3.47	2.69	.1441	
21	3.23	-1.05	5.56	7.13	4.47	.2557	
22	7.19	-1.10	5.34	3.35	4.56	.2322	
23	7.00	-1.28	6.13	3.30	4.63	.2272	
24	4.84	-1.47	6.71	3.43	4.47	.1928	
25	6.31	-1.40	7.54	3.87	6.22	.2131	
26	7.84	-1.33	5.04	4.02	5.09	.1862	
27	9.57	-1.59	8.33	4.17	3.63	.2975	720
28	11.86	-1.07	8.56	4.83	-1.65	-.0000	102
29	14.47	-1.28	9.34	5.19	1.54	.0318	104
30	16.66	-1.95	10.15	5.10	3.02	.0583	104
31	19.32	-1.87	10.28	5.34	6.93	.1263	105
32	22.40	-1.60	10.32	5.74	12.26	.2068	106
33	25.80	-1.80	11.40	6.15	10.57	.1508	107
34	28.92	-1.72	12.15	6.33	10.48	.1362	107
35	31.14	-1.68	12.61	7.53	16.60	.1749	108
36	33.15	-1.78	13.28	7.52	10.91	.1093	106
37	35.14	-1.33	13.78	7.89	8.61	.0792	107
38	37.73	-1.43	13.88	9.13	19.30	.1523	111
39	40.02	-1.40	13.64	10.12	9.36	.0678	110
40	43.13	-1.31	13.53	10.35	13.44	.0959	109
41	44.58	-1.75	12.90	11.33	22.60	.1546	109
42	46.46	-1.94	12.71	11.26	34.61	.2419	109
43	48.37	-1.80	12.89	11.30	57.68	.3960	108
44	51.45	-1.11	13.17	12.12	79.12	.4954	105
45	55.21	-1.56	14.59	12.25	81.10	.4536	103
46	57.24	-1.36	15.60	13.09	107.96	.5287	102
47	61.45	-1.82	16.22	13.72	106.47	.4785	99
48	64.31	-1.44	17.57	12.81	99.84	.4436	98
49	66.15	-1.12	17.99	13.71	82.90	.3362	100
50	69.12	-1.71	18.32	13.39	87.54	.3569	99
51	70.07	-1.29	18.82	12.40	75.41	.3230	92
52	70.69	-1.46	18.81	12.34	78.25	.3372	89
53	71.61	-1.40	19.43	13.28	76.77	.2975	85
54	73.09	-1.95	19.14	14.92	125.39	.4391	75
55	72.36	-1.82	18.85	13.81	123.00	.4726	65
56	72.65	-1.55	20.64	12.67	104.86	.4009	58
57	73.83	-1.38	21.82	11.87	64.36	.2485	54
58	73.43	-1.50	20.28	10.96	49.14	.2211	47
59	74.50	-1.70	17.20	13.21	63.05	.2775	35
60	76.69	-1.00	18.71	14.72	29.52	.1072	27
61	76.74	-1.63	18.40	14.40	.00	.0000	22
62	72.79	-1.26	18.10	14.10	.00	.0000	19
63	70.84	-1.89	17.80	13.80	.00	.0000	14
64	68.89	-1.52	17.50	13.50	.00	.0000	7
65	66.95	-1.15	17.20	13.30	.00	.0000	6
66	65.00	-1.78	16.80	13.00	.00	.0000	4
67	63.85	-1.41	16.50	12.70	.00	.0000	4
68	61.10	-1.04	16.20	12.40	.00	.0000	4
69	59.15	-1.67	15.90	12.10	.00	.0000	3
70	57.20	-1.30	15.60	11.80	.00	.0000	2

TABLE 1.12. CAPE KENNEDY BIVARIATE NORMAL STATISTICS
90 DEGREE FLIGHT AZIMUTH
DECEMBER

Alt (km)	u	v	S(u)	S(v)	S(uv)	R(uv)	N
0	.06	-1.06	1.82	3.09	-2.42	-.2781	744
1	1.11	.21	1.73	5.79	1.23	.0314	
2	4.58	.71	7.25	5.36	3.24	.0835	
3	7.89	.65	7.60	5.73	6.03	.1385	
4	11.19	1.04	8.20	6.51	11.36	.2128	
5	14.07	1.65	9.10	7.65	15.57	.2229	
6	17.13	1.60	9.77	8.47	20.22	.2443	
7	20.22	2.13	10.31	9.39	27.27	.2655	
8	23.35	2.56	12.22	10.43	41.96	.3284	
9	26.69	2.93	13.33	11.73	55.62	.3399	
10	29.84	3.09	15.27	13.34	66.00	.3240	
11	32.38	3.07	15.63	14.39	71.03	.3153	
12	34.84	3.46	15.72	15.03	70.68	.3000	
13	35.61	3.72	14.53	13.94	57.21	.3314	
14	34.20	3.40	13.30	11.23	54.38	.3590	
15	30.72	3.06	11.67	3.59	37.12	.3317	
16	26.24	2.71	9.80	9.51	24.92	.2962	
17	21.33	2.12	5.62	7.70	20.27	.3054	
18	16.16	1.57	7.56	6.28	13.99	.2947	
19	11.21	1.02	7.12	5.00	12.07	.3390	
20	8.73	.67	6.80	4.09	7.02	.2741	
21	7.13	.69	6.67	3.83	3.72	.3805	
22	7.00	.66	6.47	3.40	7.60	.3457	
23	7.85	.42	7.07	3.57	6.67	.2643	
24	9.64	.67	8.01	3.61	7.46	.2579	
25	11.52	.77	9.95	4.07	8.15	.2237	
26	13.03	.99	10.01	4.44	5.85	.1317	
27	14.17	1.30	10.83	4.69	5.70	.1123	744
28	13.17	3.24	12.88	4.90	3.02	.0479	152
29	14.38	3.78	14.65	5.31	-2.96	-.0380	154
30	16.16	5.58	15.72	5.83	-11.20	-.1222	159
31	18.27	6.48	17.49	6.98	-27.31	-.2236	160
32	19.77	7.29	18.67	8.14	-49.05	-.3193	161
33	20.95	8.22	21.33	8.45	-34.88	-.1935	161
34	22.42	8.38	22.54	8.41	-35.68	-.1882	161
35	23.22	7.40	23.74	8.41	-28.85	-.1445	161
36	23.97	7.00	24.71	9.25	-37.99	-.1662	161
37	24.74	6.74	26.57	10.63	-59.99	-.2125	161
38	25.30	6.41	28.44	11.99	-81.17	-.2380	161
39	25.99	7.32	29.77	12.99	-117.19	-.3030	162
40	26.96	7.39	31.00	12.94	-112.48	-.2803	162
41	27.73	7.26	31.63	11.95	-101.27	-.2678	162
42	27.56	7.32	31.82	11.26	-75.02	-.2093	160
43	27.17	7.67	32.06	10.91	-76.33	-.2182	159
44	27.23	7.46	31.57	10.40	-60.31	-.1836	160
45	27.45	7.40	32.71	10.42	-84.36	-.2474	158
46	28.24	7.34	33.20	10.39	-85.56	-.2480	157
47	28.89	8.36	33.59	10.27	-64.78	-.1878	158
48	29.36	9.59	33.86	10.49	-50.73	-.1428	155
49	29.27	9.83	33.99	10.45	-40.71	-.1146	149
50	29.31	9.17	33.56	10.58	-24.38	-.0687	146
51	29.93	9.71	34.39	11.21	-9.02	-.0234	139
52	28.82	9.44	34.70	11.55	-6.77	-.0169	132
53	29.08	8.48	35.23	11.61	17.18	.0420	127
54	29.87	7.86	35.80	11.78	-10.41	-.0247	117
55	30.96	6.87	36.09	13.19	7.04	.0148	105
56	34.27	6.98	37.46	14.27	41.54	.0777	90
57	35.17	5.90	36.57	14.76	47.03	.0871	75
58	30.57	6.18	33.96	15.15	39.83	.0774	57
59	32.85	2.27	34.75	15.91	71.27	.1289	42
60	36.01	1.13	36.85	18.36	404.17	.5973	24
61	34.19	1.11	34.80	16.90	.00	.0000	16
62	32.37	1.08	32.80	15.40	.00	.0000	8
63	30.55	1.06	30.90	13.90	.00	.0000	2
64	28.73	1.03	28.90	12.40	.00	.0000	1
65	26.91	1.02	26.90	11.00	.00	.0000	0
66	25.08	.99	24.90	9.50	.00	.0000	0
67	23.26	.97	22.90	8.00	.00	.0000	0
68	21.44	.95	21.00	6.50	.00	.0000	1
69	19.62	.92	19.00	5.00	.00	.0000	1
70	17.80	.90	17.00	3.50	.00	.0000	1

TABLE 2.1. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

JANUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.41	-7.39	-6.41	-5.34	-3.41	-2.41	2.59	4.42	5.59	6.57	8.59
1	-17.55	-13.03	-10.43	-8.58	-4.32	-2.30	8.92	13.19	15.59	17.70	22.16
2	-16.01	-11.35	-9.09	-6.63	-2.17	4.75	11.67	16.13	19.50	20.85	25.51
3	-16.13	-10.97	-8.48	-5.76	-0.83	6.82	14.47	19.41	22.12	24.62	29.74
4	-16.48	-10.77	-8.01	-5.00	0.46	8.93	17.40	22.88	25.87	28.63	34.34
5	-17.48	-11.06	-7.95	-4.56	1.58	11.11	20.64	26.70	30.17	33.28	39.70
6	-18.03	-10.94	-7.51	-3.77	2.01	13.54	24.06	30.85	34.59	38.02	45.11
7	-19.89	-11.96	-7.97	-2.73	3.96	15.89	27.82	35.61	39.75	43.54	51.69
8	-21.37	-12.54	-8.26	-2.61	4.85	17.96	31.06	39.52	44.17	48.45	57.20
9	-23.02	-13.16	-8.69	-2.60	5.64	19.37	34.29	43.63	46.62	51.30	62.95
10	-24.34	-13.88	-8.81	-3.30	6.71	22.23	37.76	47.77	52.28	58.34	68.60
11	-25.57	-14.44	-9.05	-3.19	7.48	24.00	40.52	51.18	57.05	62.44	73.57
12	-23.50	-12.55	-7.24	-1.47	9.01	25.27	41.53	52.02	57.70	63.17	74.05
13	-16.30	-7.42	-2.63	0.16	11.23	25.29	39.35	44.42	53.41	58.00	67.48
14	-13.78	-5.36	-1.28	0.16	11.22	27.73	36.23	44.29	48.73	52.81	61.23
15	-12.41	-4.81	-1.13	0.87	10.14	21.42	32.70	39.97	47.33	47.66	55.26
16	-10.04	-3.63	-0.52	2.80	9.01	18.53	28.06	34.20	37.59	40.69	47.11
17	-10.66	-4.93	-2.16	0.86	6.34	14.84	23.34	24.42	31.84	34.62	40.34
18	-10.84	-5.93	-3.55	-0.97	0.73	11.01	18.29	22.99	25.58	27.95	32.86
19	-10.79	-6.66	-4.66	-2.49	1.46	7.59	13.72	17.67	19.38	21.35	25.93
20	-11.35	-7.70	-5.93	-4.00	-0.50	4.92	10.35	13.84	15.77	17.54	21.20
21	-12.09	-8.61	-6.92	-5.08	-1.75	3.43	8.60	11.74	13.77	15.46	19.95
22	-13.89	-10.11	-8.28	-6.29	-2.68	2.93	8.52	12.15	14.14	15.67	19.74
23	-14.97	-10.96	-9.02	-6.31	-3.07	2.88	9.93	12.67	14.73	16.73	20.73
24	-15.63	-11.44	-9.41	-7.20	-3.18	3.04	9.26	13.28	15.40	17.52	21.71
25	-15.97	-11.54	-9.40	-7.07	-2.83	3.74	10.31	14.54	16.99	19.02	23.44
26	-18.34	-13.17	-10.67	-7.94	-2.00	4.67	12.34	17.23	20.01	22.52	27.68
27	-20.35	-14.54	-11.73	-9.67	-3.11	5.50	14.12	19.67	22.73	25.54	31.35
28	-24.42	-16.67	-13.77	-14.87	-3.33	6.71	13.75	18.29	20.79	23.09	27.83
29	-18.77	-10.80	-7.95	-5.17	-1.13	7.69	15.51	20.56	23.33	25.88	31.15
30	-17.02	-11.08	-8.21	-5.08	0.61	9.42	18.24	23.82	27.05	29.93	35.86
31	-17.75	-11.32	-8.21	-4.82	1.34	10.88	20.43	26.58	29.97	33.09	39.52
32	-20.90	-13.71	-10.23	-6.44	0.44	11.12	21.79	28.67	32.46	35.95	43.14
33	-25.11	-17.09	-13.21	-8.98	-1.31	10.59	22.49	30.16	34.39	38.27	46.29
34	-26.22	-18.05	-14.09	-9.78	-1.95	10.18	22.32	30.14	34.45	38.41	46.59
35	-29.64	-20.80	-16.52	-11.87	-3.81	9.71	22.82	31.28	35.94	40.22	49.06
36	-29.54	-20.69	-16.40	-11.73	-3.26	9.88	23.02	31.50	36.16	40.45	49.30
37	-31.82	-22.27	-17.74	-12.81	-3.85	10.03	23.92	32.87	37.80	42.33	51.69
38	-33.82	-23.87	-19.05	-13.81	-4.29	10.48	25.24	34.77	40.01	44.83	54.77
39	-32.52	-22.69	-17.93	-12.75	-3.34	11.26	25.85	35.26	40.45	45.21	55.04
40	-32.24	-22.41	-17.65	-12.46	-3.05	11.54	26.13	35.55	40.73	45.49	55.32
41	-32.85	-22.73	-17.84	-12.50	-2.82	12.19	27.21	36.89	42.22	47.12	57.24
42	-33.21	-22.76	-17.69	-12.18	-2.17	13.35	28.87	38.88	44.39	49.46	59.82
43	-33.38	-22.65	-17.45	-11.79	-1.52	14.41	30.34	40.62	46.27	51.47	62.21
44	-33.85	-22.69	-17.23	-11.41	0.73	15.83	32.39	43.07	48.95	54.36	65.52
45	-34.55	-22.91	-17.27	-11.14	0.00	17.27	34.55	45.69	51.82	57.46	69.09
46	-35.22	-22.98	-17.04	-10.58	1.16	19.37	37.57	49.31	55.78	61.72	73.98
47	-35.68	-23.06	-16.87	-10.12	2.13	21.12	40.11	52.36	59.10	65.30	78.09
48	-35.85	-22.08	-15.80	-8.96	3.45	22.70	41.94	54.35	61.19	67.47	80.44
49	-35.85	-22.92	-16.43	-9.35	3.49	23.41	43.33	56.17	63.24	69.74	83.16
50	-36.43	-23.28	-16.72	-9.58	3.39	23.50	43.60	56.57	63.71	70.27	83.82
51	-36.94	-23.48	-16.96	-9.87	3.01	22.99	42.97	55.85	62.94	69.46	82.92
52	-37.82	-24.20	-17.60	-10.42	2.62	22.85	43.07	56.11	63.29	69.89	83.52
53	-36.78	-23.15	-16.54	-9.35	3.70	23.94	44.18	57.24	64.42	71.03	84.66
54	-31.18	-18.26	-12.00	-5.18	7.19	26.37	45.56	57.93	64.74	71.00	83.92
55	-29.91	-17.46	-11.43	-4.87	7.04	25.51	43.99	55.90	62.46	68.49	80.94
56	-29.07	-16.18	-9.88	-3.14	9.21	28.34	47.40	59.83	66.62	72.87	85.76
57	-29.40	-15.62	-8.94	-1.67	11.52	31.98	52.44	65.63	72.39	79.57	93.35
58	-29.54	-23.36	-15.52	-6.99	8.50	32.53	56.55	72.04	80.57	88.41	104.60
59	-34.83	-20.14	-13.02	-5.28	8.79	30.60	52.41	66.47	74.22	81.33	96.03
60	-35.52	-21.14	-14.17	-6.59	7.17	28.52	49.87	63.63	71.21	78.18	92.56
61	-32.02	-18.69	-12.24	-5.21	7.54	27.32	47.10	59.86	66.58	73.33	86.66
62	-30.25	-17.53	-11.46	-4.79	7.33	26.12	44.91	57.03	63.70	69.83	82.49
63	-28.69	-16.65	-10.82	-4.47	7.05	24.92	42.79	54.31	60.66	66.49	78.52
64	-27.17	-15.79	-10.21	-4.24	6.75	23.72	40.68	51.62	57.64	63.17	74.60
65	-25.96	-15.07	-9.80	-4.06	6.37	22.53	38.69	49.11	54.95	60.13	71.01
66	-24.77	-14.42	-9.41	-3.95	5.96	21.33	36.69	46.60	52.06	57.07	67.43
67	-23.94	-14.04	-9.25	-4.04	5.44	20.13	34.81	44.29	49.50	54.30	64.19
68	-23.88	-13.64	-9.08	-4.11	4.92	18.92	32.92	41.94	46.92	51.48	60.91
69	-22.71	-13.63	-9.23	-4.85	4.24	17.72	31.20	39.89	44.68	49.08	58.16
70	-22.55	-13.78	-9.53	-4.20	3.50	16.52	29.55	37.94	42.57	46.82	55.59

TABLE 2.2. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH
FEBRUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-3.52	-7.75	-6.30	-5.16	-3.08	.15	3.37	5.45	6.59	7.65	9.82
1	-15.84	-11.42	-9.27	-8.94	-5.71	7.20	10.43	14.66	16.99	19.14	23.56
2	-14.55	-9.98	-7.76	-5.35	-5.97	5.31	12.60	16.97	19.39	21.60	26.17
3	-14.77	-9.66	-7.18	-4.42	.40	7.38	15.57	20.46	23.15	25.63	30.74
4	-14.35	-9.74	-6.63	-7.67	1.63	10.01	18.34	23.70	26.66	29.37	34.98
5	-16.20	-9.82	-6.73	-3.37	2.77	12.20	21.66	27.76	31.12	34.21	40.59
6	-17.24	-10.07	-6.59	-2.31	4.06	14.70	25.35	32.22	36.00	39.47	46.55
7	-19.32	-11.19	-7.26	-2.07	4.81	16.87	28.93	36.71	41.00	44.93	53.06
8	-21.57	-12.50	-8.10	-1.32	5.37	18.87	32.30	40.99	45.77	50.15	59.24
9	-24.33	-14.16	-9.24	-0.88	5.85	20.95	36.04	45.77	51.13	56.05	66.22
10	-26.91	-15.30	-10.42	-4.56	6.07	22.57	39.06	48.70	55.55	60.94	72.05
11	-29.02	-17.04	-11.24	-4.93	6.52	24.31	42.09	53.55	59.86	65.66	77.64
12	-26.55	-14.81	-9.12	-2.92	8.72	25.75	43.19	54.43	60.62	66.31	78.06
13	-22.39	-11.89	-6.36	-1.67	9.67	25.71	41.74	52.48	57.77	63.00	73.60
14	-17.94	-8.57	-4.03	.91	9.87	23.73	37.68	45.65	51.59	56.13	65.49
15	-13.61	-6.04	-2.27	1.83	9.27	20.81	32.35	38.79	43.87	47.66	55.43
16	-11.92	-5.20	-1.94	1.51	9.05	18.04	28.07	34.47	38.02	41.29	49.01
17	-11.42	-5.65	-2.85	.10	9.72	14.30	22.87	28.40	31.44	34.24	40.01
18	-12.38	-7.25	-4.77	-2.06	2.45	10.47	18.03	23.00	26.70	29.19	33.32
19	-12.35	-7.97	-5.85	-2.54	.85	7.15	13.65	17.85	20.16	22.26	26.55
20	-13.42	-9.46	-7.54	-5.45	-1.67	4.22	10.11	13.40	15.99	17.91	21.87
21	-15.18	-11.32	-9.48	-7.41	-2.71	2.62	7.75	11.45	13.48	15.35	19.22
22	-15.08	-11.50	-9.77	-7.89	-4.45	.84	6.15	9.57	11.45	13.18	16.76
23	-15.15	-11.59	-9.87	-7.99	-4.59	.69	5.97	9.78	11.26	12.98	16.40
24	-14.61	-11.13	-9.44	-7.01	-4.29	.89	6.06	9.39	11.23	12.92	16.40
25	-15.83	-12.12	-10.33	-8.37	-4.82	.68	6.19	9.74	11.69	13.44	17.20
26	-16.17	-12.31	-10.44	-8.40	-4.70	1.03	6.77	10.47	12.51	14.38	18.24
27	-16.74	-12.66	-10.69	-8.53	-4.62	1.44	7.51	11.41	13.57	15.55	19.63
28	-12.76	-8.76	-6.82	-4.72	-4.89	5.04	10.98	14.80	16.91	18.85	22.85
29	-13.46	-9.30	-7.10	-4.69	-3.33	6.44	13.21	17.57	19.98	22.19	26.75
30	-14.12	-9.96	-6.47	-3.75	1.19	8.84	16.49	21.43	24.15	26.64	31.80
31	-13.13	-7.74	-5.12	-2.28	2.89	10.91	18.92	24.09	26.93	29.55	34.95
32	-13.76	-7.75	-4.84	-1.68	4.08	12.99	21.91	27.66	30.83	33.74	39.75
33	-15.08	-8.99	-6.04	-2.84	2.99	12.02	21.05	26.87	30.08	33.02	39.11
34	-16.57	-10.51	-7.58	-4.39	1.40	10.39	19.38	25.17	28.36	31.29	37.35
35	-19.48	-12.85	-9.63	-6.14	.21	10.05	19.89	26.24	29.74	32.95	39.58
36	-19.58	-12.82	-9.54	-5.98	.49	10.53	20.57	27.04	30.61	33.88	40.64
37	-19.35	-12.60	-9.34	-5.79	.67	10.67	20.68	27.13	30.69	33.95	40.69
38	-19.79	-12.87	-9.52	-5.87	.76	11.03	21.31	27.93	31.58	34.93	41.86
39	-20.83	-13.60	-10.11	-6.30	.61	11.34	22.06	28.97	32.78	36.28	43.50
40	-22.40	-14.68	-10.94	-6.87	.52	11.98	23.44	30.83	34.90	38.63	46.35
41	-24.17	-15.60	-11.45	-6.94	1.26	13.98	26.69	34.89	39.41	43.55	52.12
42	-21.69	-13.17	-9.04	-4.55	3.61	16.25	28.89	37.05	41.54	45.66	54.18
43	-23.26	-13.99	-9.50	-4.61	4.26	18.03	31.79	40.67	45.56	50.05	59.32
44	-25.21	-15.07	-10.16	-4.82	4.89	19.94	34.98	44.69	50.03	54.94	65.08
45	-22.41	-12.29	-7.39	-2.05	7.63	22.66	37.68	47.37	52.70	57.60	67.72
46	-21.28	-10.99	-6.01	-1.59	9.26	24.53	39.80	49.65	55.08	60.06	70.35
47	-20.67	-10.32	-5.31	.15	10.06	25.43	40.80	50.71	56.16	61.18	71.53
48	-17.37	-7.65	-2.94	2.18	11.48	25.91	40.34	49.64	54.77	59.47	69.19
49	-15.58	-6.11	-1.47	3.58	12.75	26.96	41.18	50.35	55.39	60.03	69.61
50	-15.76	-6.14	-1.49	3.58	12.79	27.06	41.33	50.53	55.60	60.26	69.87
51	-16.69	-6.73	-1.90	3.36	12.90	27.70	42.50	52.04	57.29	62.12	72.09
52	-17.95	-7.43	-2.34	3.21	13.28	28.89	44.50	54.57	60.11	65.21	75.73
53	-17.24	-6.59	-1.43	4.18	14.38	30.18	45.99	56.19	61.80	66.96	77.61
54	-18.61	-7.32	-1.85	4.10	14.90	31.66	48.41	59.22	65.17	70.64	81.93
55	-19.05	-7.17	-1.41	4.85	16.23	33.86	51.50	62.88	69.14	74.90	86.78
56	-20.40	-8.04	-2.05	4.47	16.31	34.67	53.03	64.86	71.38	77.37	89.74
57	-26.61	-12.60	-5.81	1.58	15.00	35.80	56.60	70.02	77.41	84.19	98.21
58	-16.13	-4.51	1.11	7.23	18.35	35.59	52.83	63.94	70.07	75.69	87.30
59	-4.15	5.56	10.26	15.38	24.68	39.10	53.51	62.81	67.93	72.63	82.35
60	-3.06	7.12	12.06	17.42	27.17	42.29	57.41	67.16	72.53	77.46	87.65
61	-12.60	-5.56	5.28	11.63	23.16	41.04	58.92	70.45	76.80	82.63	94.68
62	-12.69	-9.1	4.79	11.00	22.28	39.76	57.25	68.53	74.74	80.44	92.22
63	-13.06	-1.48	4.13	10.23	21.32	38.51	55.69	66.78	72.88	78.49	90.07
64	-13.19	-1.83	3.65	9.62	20.45	37.24	54.04	64.87	70.83	76.31	87.63
65	-13.41	-2.32	3.05	8.90	19.52	35.98	52.45	63.07	68.92	74.29	85.38
66	-13.70	-2.82	2.44	8.17	18.58	34.72	50.85	61.26	66.99	72.26	83.13
67	-13.78	-3.17	1.96	7.55	17.71	33.45	49.20	59.35	64.94	70.08	80.69
68	-14.16	-3.75	1.29	6.78	16.74	32.19	47.64	57.61	63.09	68.14	78.54
69	-14.25	-4.11	.81	6.15	15.87	30.92	45.98	55.69	61.04	65.95	76.09
70	-14.53	-4.60	.20	5.43	14.93	29.66	44.39	53.89	59.13	63.93	73.88

TABLE 2.3. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

MARCH

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.32	-7.70	-6.62	-5.45	-3.32	-1.01	3.29	5.42	6.79	7.67	9.47
1	-15.99	-11.71	-9.63	-7.37	-3.27	3.08	9.44	13.54	15.60	17.87	22.15
2	-14.49	-10.15	-8.04	-5.75	-1.59	4.86	11.31	15.47	17.76	19.97	24.22
3	-15.12	-10.26	-7.91	-5.34	-0.69	6.53	13.74	18.79	20.90	23.11	28.17
4	-15.96	-10.59	-7.99	-5.16	-0.01	7.96	15.94	21.09	23.21	26.52	31.33
5	-16.61	-10.68	-7.81	-4.68	0.99	9.80	18.60	24.28	27.40	30.28	36.21
6	-17.21	-10.64	-7.47	-4.01	2.27	12.01	21.75	29.03	31.43	34.67	41.23
7	-18.76	-11.38	-7.81	-3.92	3.13	14.08	25.03	32.08	35.37	39.54	46.92
8	-19.52	-11.56	-7.70	-3.50	4.13	15.96	27.78	35.41	39.61	43.47	51.44
9	-22.43	-13.40	-9.03	-4.27	4.38	17.79	31.20	39.85	44.61	49.02	58.01
10	-24.50	-14.59	-9.79	-4.56	4.93	19.64	34.35	43.44	49.07	53.87	63.73
11	-27.19	-16.33	-11.07	-5.35	5.04	21.16	37.27	47.67	52.39	58.65	69.51
12	-24.61	-13.97	-3.82	-3.21	6.97	22.76	39.55	49.73	54.33	59.49	70.12
13	-18.89	-9.49	-4.94	0.02	3.01	22.97	36.92	45.91	50.87	55.42	64.82
14	-12.90	-5.24	-1.53	2.50	7.93	21.20	32.56	39.89	43.33	47.64	55.37
15	-10.61	-3.99	-0.78	2.72	9.06	18.90	28.74	37.08	38.57	41.73	48.41
16	-8.85	-3.24	-0.52	2.44	7.81	16.14	24.47	29.94	32.80	35.52	41.13
17	-9.27	-4.21	-1.75	0.92	5.76	13.28	20.80	25.85	28.32	30.78	35.84
18	-10.21	-5.77	-3.67	-1.28	2.96	9.55	16.17	20.38	22.72	24.37	29.37
19	-11.35	-7.47	-5.60	-3.55	1.0	5.92	11.68	15.40	17.44	19.32	23.20
20	-12.25	-8.75	-7.05	-5.20	-1.95	3.75	9.55	11.90	13.75	15.45	18.95
21	-12.74	-9.55	-8.01	-6.33	-3.28	1.45	6.18	9.24	10.91	12.46	15.64
22	-13.77	-10.53	-8.96	-7.26	-4.16	0.64	5.45	8.55	10.25	11.82	15.05
23	-14.31	-11.14	-9.60	-7.93	-4.90	-0.19	4.52	7.56	9.23	10.76	13.93
24	-15.29	-11.95	-10.34	-8.58	-5.28	-0.43	4.52	7.71	9.47	11.09	14.43
25	-15.85	-12.36	-10.67	-8.84	-5.50	-0.32	4.85	8.19	10.02	11.71	15.20
26	-16.08	-12.46	-10.71	-8.80	-5.34	0.04	5.41	8.47	10.73	12.54	16.15
27	-17.54	-13.55	-11.62	-9.52	-5.70	0.22	6.14	9.90	12.05	13.95	17.98
28	-11.58	-7.67	-6.07	-4.12	-0.57	4.94	10.45	14.00	15.95	17.75	21.46
29	-11.49	-7.51	-5.88	-3.48	0.33	6.24	12.15	15.96	18.06	19.98	23.96
30	-12.44	-8.18	-6.00	-3.72	0.43	6.87	13.31	17.46	19.75	21.85	26.19
31	-14.33	-9.31	-7.46	-4.78	0.08	7.61	15.44	20.00	22.67	25.13	30.20
32	-17.92	-12.14	-9.39	-6.30	-0.76	7.82	16.40	21.93	24.98	27.77	33.56
33	-18.78	-12.90	-10.05	-6.96	-1.33	7.40	16.12	21.75	24.85	27.69	33.57
34	-18.53	-12.72	-9.91	-6.85	-1.29	7.33	15.95	21.51	24.57	27.39	33.20
35	-19.18	-13.34	-10.52	-7.44	-1.85	6.82	15.49	21.07	24.15	26.98	32.82
36	-19.77	-13.81	-10.92	-7.78	-2.08	6.77	15.62	21.32	24.47	27.35	33.31
37	-18.31	-13.12	-10.31	-7.26	-1.72	6.88	15.47	21.01	24.07	26.87	32.66
38	-19.12	-13.29	-10.47	-7.40	-1.62	6.83	15.48	21.06	24.14	26.96	32.79
39	-19.80	-13.96	-10.44	-7.25	-1.47	7.49	16.45	22.23	25.42	28.34	34.38
40	-21.19	-14.57	-11.37	-7.88	-1.55	8.27	18.09	24.43	27.91	31.12	37.73
41	-23.54	-16.29	-12.77	-8.95	-2.00	8.77	19.54	26.48	30.30	33.82	41.07
42	-22.91	-15.53	-11.96	-8.07	-1.00	9.96	20.92	27.98	31.87	35.45	42.83
43	-21.39	-14.00	-10.42	-6.52	0.55	11.52	22.49	29.57	33.47	37.05	44.44
44	-19.34	-12.03	-8.50	-4.65	2.34	13.18	24.02	31.01	34.86	38.40	45.70
45	-16.42	-9.49	-6.14	-2.48	4.15	14.44	24.72	31.36	35.01	38.37	45.30
46	-14.46	-7.65	-4.36	-0.77	5.75	15.86	25.96	32.48	36.07	39.36	46.17
47	-12.91	-6.08	-2.77	0.43	7.36	17.50	27.63	34.17	37.77	41.07	47.90
48	-11.13	-4.39	-1.12	2.44	8.89	18.90	28.91	35.37	38.93	42.19	48.94
49	-11.16	-4.10	-0.68	3.04	9.80	20.27	30.75	37.50	41.22	44.64	51.70
50	-9.92	-2.95	0.43	4.10	10.78	21.13	31.48	38.16	41.84	45.21	52.19
51	-9.52	-2.48	0.92	4.63	11.37	21.81	32.25	38.99	42.70	46.10	53.14
52	-10.20	-2.89	1.65	4.50	11.50	22.35	33.20	40.19	44.05	47.58	54.89
53	-13.13	-5.26	-1.45	2.70	10.24	21.92	33.61	41.15	45.30	49.11	56.98
54	-13.04	-5.15	-1.39	2.82	10.36	22.06	33.76	41.31	45.46	49.28	57.16
55	-14.31	-6.49	-2.41	2.03	10.09	22.59	35.09	43.15	47.59	51.67	60.09
56	-6.68	-1.8	3.50	7.12	13.69	23.88	34.07	40.64	44.26	47.59	54.45
57	-2.42	3.46	6.90	10.21	16.22	25.55	34.87	40.88	44.19	47.24	53.52
58	-0.69	2.20	5.54	9.18	15.78	26.01	36.25	42.85	46.49	49.83	56.72
59	-0.95	5.93	9.27	12.90	19.50	29.72	39.95	46.94	50.17	53.51	60.40
60	2.95	10.04	13.47	17.20	23.98	34.50	45.01	51.79	55.53	58.96	66.04
61	-6.50	2.43	6.76	11.47	20.02	33.27	46.53	55.08	59.79	64.12	73.05
62	-7.15	1.65	5.92	10.55	18.98	32.04	45.10	53.53	58.17	62.43	71.23
63	-7.99	0.72	4.95	9.54	17.88	30.82	43.75	52.10	56.69	60.91	69.63
64	-6.65	-0.06	4.10	8.62	16.84	29.58	42.33	50.55	55.07	59.23	67.81
65	-9.29	-1.84	3.26	7.71	15.81	28.36	40.91	49.01	53.46	57.56	66.01
66	-9.94	-1.62	2.42	6.80	14.78	27.14	39.50	47.47	51.86	55.89	64.22
67	-10.61	-2.41	1.56	5.88	13.73	25.90	38.07	45.92	50.28	54.21	62.41
68	-11.47	-3.35	0.58	4.86	12.63	24.68	36.73	44.50	48.78	52.71	60.83
69	-12.14	-4.15	-0.28	3.93	11.58	23.44	35.31	42.96	47.17	51.04	59.03
70	-12.81	-4.94	-1.18	3.02	10.54	22.22	33.90	41.42	45.57	49.38	57.25

TABLE 2.4. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

APRIL

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.26	-7.21	-6.22	-5.14	-4.10	-3.14	2.91	4.87	5.95	6.94	8.99
1	-15.33	-11.50	-9.76	-7.77	-6.14	-4.98	7.11	10.74	12.73	14.57	18.36
2	-16.03	-12.01	-10.00	-7.95	-6.48	-4.89	7.87	11.72	13.85	15.80	19.82
3	-18.10	-13.51	-11.22	-9.87	-8.47	-6.35	9.16	13.56	15.38	18.21	22.80
4	-19.63	-14.49	-12.00	-10.29	-8.78	-6.25	10.88	15.79	18.50	20.99	26.13
5	-20.44	-14.97	-12.17	-10.24	-8.71	-6.31	9.76	12.63	17.96	20.30	23.60
6	-21.95	-15.80	-12.87	-10.58	-8.69	-6.44	14.57	20.47	23.70	26.68	32.83
7	-22.33	-17.07	-13.78	-10.19	-8.54	-6.51	15.65	23.19	26.80	30.11	36.34
8	-25.72	-16.73	-14.61	-10.60	-8.50	-6.61	18.72	25.98	29.82	32.45	40.93
9	-29.50	-20.37	-16.80	-12.27	-9.05	-6.71	21.47	29.63	34.22	38.79	46.93
10	-34.23	-24.30	-19.97	-14.37	-9.92	-6.74	24.40	33.85	39.00	43.84	53.71
11	-37.33	-26.57	-21.33	-15.65	-10.78	-6.83	26.83	37.19	42.39	48.13	58.94
12	-39.55	-27.85	-22.22	-16.23	-11.83	-6.89	28.89	39.89	45.35	51.51	63.01
13	-39.37	-24.95	-19.67	-13.31	-10.46	-6.74	28.35	39.39	45.15	50.44	61.35
14	-30.37	-20.81	-16.18	-11.15	-10.98	-6.42	26.42	35.58	40.62	45.25	54.82
15	-23.55	-15.73	-12.01	-7.91	-9.46	-6.11	22.62	30.07	34.17	37.93	45.71
16	-20.34	-13.77	-10.59	-7.10	-8.84	-5.92	18.67	24.96	28.43	31.61	38.18
17	-18.37	-13.23	-10.44	-7.41	-10.91	-6.62	15.15	20.66	23.68	26.47	32.22
18	-17.02	-12.34	-10.07	-7.61	-10.17	-6.17	10.76	15.24	17.70	19.97	24.65
19	-16.40	-12.36	-10.40	-8.27	-10.40	-6.40	7.61	11.48	13.61	15.57	19.61
20	-15.62	-12.06	-10.30	-8.50	-10.10	-6.10	5.41	8.81	10.67	12.39	15.93
21	-14.26	-11.32	-9.87	-8.34	-10.52	-6.15	3.22	6.04	7.59	9.02	11.97
22	-13.34	-10.72	-9.47	-8.06	-10.57	-6.19	2.19	4.70	6.09	7.35	9.96
23	-13.06	-10.59	-9.33	-8.00	-10.72	-6.25	1.61	3.98	5.28	6.48	8.95
24	-14.15	-11.44	-10.13	-8.71	-10.12	-6.12	1.90	4.49	5.91	7.22	9.93
25	-15.33	-12.38	-10.97	-9.34	-10.47	-6.47	2.43	5.30	6.88	8.33	11.33
26	-15.93	-12.75	-11.21	-9.52	-10.74	-6.47	2.99	6.04	7.72	9.26	12.45
27	-15.87	-12.60	-11.02	-9.30	-10.17	-6.17	1.72	5.53	6.66	8.38	11.23
28	-14.84	-11.32	-9.62	-7.76	-10.39	-6.07	1.84	6.07	9.44	11.30	16.52
29	-14.93	-11.24	-9.46	-7.51	-10.98	-6.08	1.50	6.98	10.51	12.46	17.94
30	-15.81	-11.78	-9.83	-7.70	-10.84	-6.14	2.15	8.14	12.00	14.13	16.08
31	-15.99	-11.78	-9.74	-7.53	-10.50	-6.24	2.74	8.99	13.01	15.23	17.27
32	-16.44	-12.19	-10.18	-7.90	-10.84	-6.26	2.46	8.76	12.82	15.06	17.11
33	-18.18	-13.53	-11.28	-9.83	-10.38	-6.38	2.52	9.42	13.87	16.32	21.36
34	-20.57	-15.51	-13.06	-10.59	-10.54	-6.54	1.97	9.49	14.34	17.01	24.52
35	-20.52	-15.51	-13.08	-10.44	-10.44	-6.64	1.80	9.23	14.03	16.67	24.11
36	-19.08	-14.35	-12.06	-9.57	-10.05	-6.50	1.97	8.98	13.51	16.00	23.01
37	-18.37	-13.90	-11.74	-9.39	-10.51	-6.11	1.52	8.14	12.42	14.77	21.40
38	-20.08	-15.25	-12.90	-10.35	-10.52	-6.72	1.46	8.64	13.27	15.82	23.93
39	-19.85	-14.93	-12.55	-9.96	-10.56	-6.26	2.04	9.33	14.04	16.63	23.71
40	-19.28	-14.45	-12.12	-9.57	-10.45	-6.22	2.22	9.38	14.00	16.55	26.85
41	-20.46	-15.15	-12.57	-9.77	-10.69	-6.49	3.20	11.08	16.17	18.97	21.54
42	-20.76	-15.44	-12.86	-10.05	-10.95	-6.95	2.95	10.86	15.95	18.76	21.34
43	-20.91	-15.34	-12.65	-9.71	-10.38	-6.38	3.88	12.15	17.48	20.41	23.11
44	-22.58	-16.40	-13.41	-10.16	-10.24	-6.92	4.09	14.09	20.00	23.26	26.25
45	-22.38	-15.99	-12.90	-9.54	-10.42	-6.05	15.53	15.53	21.64	25.01	28.10
46	-22.91	-16.02	-12.69	-9.06	-10.47	-6.76	17.98	17.98	24.57	28.20	31.53
47	-23.44	-16.41	-13.01	-9.30	-10.57	-7.86	18.29	25.02	28.72	32.12	34.42
48	-24.36	-17.15	-13.66	-9.87	-10.47	-7.72	18.42	25.32	29.11	32.60	39.81
49	-23.49	-16.52	-13.14	-9.47	-10.79	-7.56	17.91	24.59	28.27	31.64	38.62
50	-22.76	-15.84	-12.49	-8.85	-10.22	-8.05	18.31	24.94	28.58	31.93	38.85
51	-22.54	-15.53	-12.13	-8.44	-10.72	-8.69	19.09	25.81	29.50	32.30	39.91
52	-20.55	-13.96	-10.77	-7.30	-10.00	-8.77	18.55	24.85	28.32	31.51	38.09
53	-20.38	-13.80	-10.62	-7.15	-10.85	-8.91	18.68	24.98	28.44	31.63	38.21
54	-19.81	-13.12	-9.88	-6.35	-10.05	-9.97	19.90	26.30	29.83	33.07	39.75
55	-22.28	-14.89	-11.31	-7.42	-10.35	-10.61	21.58	28.65	32.54	36.12	43.51
56	-21.59	-14.21	-10.68	-6.76	-11.24	-11.24	22.19	29.24	33.13	36.70	44.07
57	-23.70	-15.83	-12.02	-7.87	-11.34	-11.34	23.02	30.56	34.70	38.52	46.39
58	-31.10	-21.49	-16.88	-11.78	-12.58	-11.68	25.94	35.13	40.19	44.85	54.45
59	-25.42	-17.16	-13.15	-8.80	-11.38	-11.38	23.64	31.55	35.90	39.91	48.17
60	-26.20	-17.58	-13.41	-8.87	-12.18	-12.18	24.97	33.23	37.77	41.94	50.56
61	-23.38	-15.49	-11.67	-7.51	-11.75	-11.75	23.46	31.01	35.17	38.99	46.88
62	-23.17	-15.43	-11.67	-7.59	-11.32	-11.32	22.81	30.23	34.31	38.06	45.80
63	-23.02	-15.41	-11.72	-7.71	-10.89	-10.89	22.20	29.49	33.50	37.19	44.81
64	-22.82	-15.35	-11.73	-7.79	-10.46	-10.46	21.55	28.71	32.65	36.27	43.74
65	-22.92	-15.52	-11.94	-8.04	-10.02	-10.02	21.00	28.08	31.98	35.57	42.96
66	-22.78	-15.51	-11.99	-8.16	-10.20	-10.20	20.38	27.34	31.17	34.69	41.96
67	-22.60	-15.47	-12.01	-8.25	-10.43	-10.43	19.74	26.57	30.33	33.78	40.91
68	-22.58	-15.55	-12.18	-8.44	-10.73	-10.73	19.17	25.90	29.61	33.01	40.04
69	-22.41	-15.51	-12.17	-8.54	-10.94	-10.94	18.54	25.14	28.77	32.11	39.01
70	-22.40	-15.61	-12.31	-8.73	-10.22	-10.22	17.96	24.46	28.05	31.34	38.13

TABLE 2.5. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

MAY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.20	-6.42	-5.56	-4.62	-2.92	-2.28	2.36	4.66	5.00	5.86	7.64
1	-14.03	-10.78	-9.21	-7.50	-4.33	4.42	5.24	8.35	10.05	11.63	14.88
2	-16.39	-12.70	-10.92	-8.98	-5.45	4.02	5.45	9.02	10.96	12.74	16.43
3	-17.14	-13.20	-11.27	-9.22	-5.44	4.41	6.25	10.03	12.11	14.02	17.93
4	-18.25	-13.95	-11.86	-9.59	-5.47	4.93	7.32	11.45	13.72	15.81	20.11
5	-18.93	-14.33	-12.11	-9.50	-5.29	1.53	8.35	12.75	15.17	17.40	21.93
6	-20.54	-15.45	-12.98	-10.30	-5.42	2.12	9.08	14.55	17.23	19.75	24.79
7	-22.99	-17.16	-14.34	-11.23	-5.71	2.92	11.55	17.13	20.19	23.01	28.83
8	-24.79	-18.35	-15.23	-11.24	-5.68	3.87	13.43	19.59	22.98	26.10	32.53
9	-28.29	-20.92	-17.36	-13.47	-6.42	4.52	15.46	22.52	26.40	31.27	37.34
10	-32.65	-24.12	-19.99	-15.50	-7.34	5.31	17.96	26.12	30.61	34.74	43.26
11	-37.04	-27.33	-22.63	-17.51	-8.21	6.20	20.61	29.90	35.02	39.72	49.40
12	-40.57	-29.88	-24.71	-19.08	-8.85	7.01	22.87	33.09	38.72	42.90	54.58
13	-40.59	-29.89	-24.71	-19.07	-8.83	7.05	22.97	33.17	38.81	43.99	54.68
14	-35.20	-25.80	-21.25	-16.29	-7.29	6.66	20.62	29.63	34.57	39.12	48.52
15	-29.15	-21.52	-17.82	-13.79	-6.48	4.86	16.20	23.51	27.54	31.24	39.99
16	-23.89	-17.87	-14.95	-11.77	-6.00	2.94	11.68	17.65	20.53	22.75	29.77
17	-20.45	-15.63	-13.29	-10.75	-6.13	1.03	8.18	12.90	15.34	17.32	22.50
18	-17.33	-13.57	-11.75	-9.77	-6.17	-0.60	4.98	8.58	10.56	12.38	16.14
19	-14.45	-11.54	-10.14	-8.61	-5.93	-1.52	2.73	5.57	7.11	9.51	11.42
20	-13.48	-10.98	-9.77	-8.46	-6.07	-2.37	1.37	3.72	5.03	6.74	8.73
21	-12.45	-10.29	-9.25	-8.11	-6.05	-2.85	0.35	2.42	3.56	4.62	6.70
22	-12.04	-10.72	-9.69	-8.57	-6.55	-3.40	-0.25	1.79	2.89	3.72	5.04
23	-13.11	-10.98	-9.95	-8.83	-6.79	-3.64	-0.48	1.56	2.83	3.71	5.07
24	-14.17	-11.85	-10.73	-9.51	-7.30	-3.86	-0.42	1.79	3.01	4.12	6.45
25	-14.98	-12.33	-11.35	-10.06	-7.72	-4.08	-0.45	1.83	3.13	4.37	6.81
26	-15.63	-13.08	-11.82	-10.45	-7.95	-4.08	-0.21	2.29	3.67	4.92	7.54
27	-15.96	-13.27	-11.37	-10.55	-7.98	-3.99	0.00	2.57	3.93	5.29	7.93
28	-15.89	-12.99	-11.59	-10.06	-7.28	-2.97	1.34	4.11	5.64	7.05	9.95
29	-16.42	-13.27	-11.74	-10.08	-7.07	-2.39	2.28	5.30	6.96	8.48	11.63
30	-18.38	-14.76	-13.01	-11.10	-7.64	-2.28	3.09	6.55	8.45	10.20	13.82
31	-17.90	-14.35	-12.62	-10.75	-7.34	-2.06	3.22	6.62	8.50	10.22	13.78
32	-17.58	-13.93	-12.16	-10.23	-6.73	-1.30	4.13	7.63	9.56	11.33	14.99
33	-18.93	-15.03	-13.14	-11.08	-7.35	-1.55	4.24	7.98	10.04	11.93	15.93
34	-19.69	-15.69	-13.75	-11.64	-7.81	-1.86	4.08	7.91	10.02	11.96	15.96
35	-21.42	-17.17	-15.11	-12.87	-8.80	-2.49	3.82	7.89	10.13	12.18	16.43
36	-22.94	-18.53	-16.40	-14.08	-9.86	-3.32	3.21	7.43	9.75	11.89	16.29
37	-20.87	-16.91	-14.99	-12.91	-9.12	-3.24	2.63	6.42	8.51	10.42	14.38
38	-18.77	-15.24	-13.53	-11.67	-8.29	-3.05	2.20	5.58	7.44	9.15	12.68
39	-19.78	-16.13	-14.37	-12.44	-8.95	-3.53	1.88	5.38	7.30	9.07	12.71
40	-21.30	-17.57	-15.77	-13.81	-10.24	-4.71	0.81	4.38	6.34	8.15	11.87
41	-23.06	-19.12	-17.21	-15.14	-11.36	-5.51	0.34	4.11	6.19	8.10	12.04
42	-23.33	-19.25	-17.28	-15.13	-11.24	-5.19	0.85	4.75	6.90	8.87	12.94
43	-25.21	-21.44	-19.12	-16.61	-12.03	-4.94	2.15	6.72	9.24	11.55	16.33
44	-24.97	-20.52	-18.35	-16.02	-11.76	-5.15	1.46	5.72	8.07	10.23	14.68
45	-25.34	-20.81	-18.62	-16.23	-11.90	-5.18	1.55	5.88	8.27	10.45	14.99
46	-26.21	-21.54	-19.27	-16.81	-12.34	-5.41	1.53	6.00	8.46	10.73	15.40
47	-27.48	-22.41	-19.95	-17.28	-12.83	-4.91	2.62	7.47	10.14	12.60	17.66
48	-28.43	-23.63	-21.11	-18.37	-13.38	-5.66	2.07	7.05	9.79	12.31	17.52
49	-30.31	-24.97	-22.39	-19.57	-14.46	-6.54	1.39	6.50	9.31	11.90	17.24
50	-30.47	-25.04	-22.41	-19.55	-14.35	-6.29	1.76	6.96	9.82	12.45	17.88
51	-31.07	-25.42	-22.68	-19.69	-14.28	-5.88	2.52	7.94	10.92	13.66	19.32
52	-32.62	-26.66	-23.77	-20.62	-14.91	-6.06	2.79	8.50	11.65	14.54	20.50
53	-32.68	-26.71	-23.82	-20.68	-14.96	-6.10	2.75	8.47	11.61	14.50	20.47
54	-33.50	-27.25	-24.22	-20.93	-14.95	-5.68	3.59	9.57	12.87	15.89	22.14
55	-34.66	-28.24	-25.14	-21.75	-15.61	-6.08	3.45	9.60	12.98	16.09	22.51
56	-36.72	-29.90	-26.59	-22.99	-16.46	-6.32	3.81	10.35	13.94	17.25	24.08
57	-39.55	-31.99	-28.32	-24.33	-17.09	-5.86	5.37	12.61	16.60	20.27	27.83
58	-47.26	-38.32	-33.99	-29.28	-20.72	-7.45	5.81	14.37	19.08	23.41	32.35
59	-45.35	-36.87	-32.77	-28.30	-20.18	-7.60	4.99	13.10	17.57	21.68	30.16
60	-55.98	-45.08	-39.80	-34.05	-23.61	-7.42	8.77	19.21	24.96	30.24	41.15
61	-49.12	-39.70	-35.14	-30.18	-21.16	-7.19	6.79	15.80	20.77	25.33	34.74
62	-46.33	-37.43	-33.20	-28.54	-20.08	-6.95	6.18	14.64	19.30	23.58	32.43
63	-43.75	-35.44	-31.41	-27.03	-19.07	-6.73	5.61	13.57	17.95	21.98	30.29
64	-40.87	-33.15	-29.41	-25.34	-17.95	-6.50	4.96	12.35	16.42	20.16	27.88
65	-38.28	-31.09	-27.61	-23.82	-16.94	-6.26	4.41	11.29	15.08	18.56	25.75
66	-35.49	-28.88	-25.67	-22.18	-15.85	-6.03	3.79	10.13	13.62	16.82	23.44
67	-32.62	-26.59	-23.68	-20.50	-14.74	-5.80	3.14	8.31	12.08	15.00	21.02
68	-30.04	-24.54	-21.88	-18.99	-13.73	-5.57	2.58	7.84	10.74	13.40	18.89
69	-27.35	-22.40	-20.01	-17.40	-12.67	-5.34	2.00	6.73	9.34	11.73	16.67
70	-24.57	-20.20	-18.08	-15.78	-11.59	-5.10	1.39	5.57	7.88	9.99	14.37

TABLE 2.6. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

JUNE

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.25	-5.55	-4.77	-3.84	-2.21	.31	2.83	4.45	5.35	6.17	7.87
1	-12.12	-9.02	-7.52	-5.38	-2.91	1.63	6.30	9.27	12.31	12.41	15.51
2	-12.22	-9.09	-7.58	-5.33	-2.94	1.70	6.34	9.34	12.38	12.50	15.62
3	-11.80	-8.75	-7.27	-5.56	-2.73	1.80	6.34	9.20	12.37	12.35	15.41
4	-12.14	-9.00	-7.48	-5.82	-2.82	1.85	6.51	9.52	12.18	12.70	15.84
5	-12.59	-9.33	-7.33	-6.14	-3.07	1.68	6.43	9.50	12.18	12.73	15.94
6	-14.08	-10.60	-8.21	-7.07	-3.74	1.43	6.60	9.94	12.78	13.46	16.95
7	-15.76	-11.86	-9.98	-7.32	-4.12	1.60	7.39	11.12	13.18	15.07	18.97
8	-17.97	-13.55	-11.40	-8.07	-4.84	1.72	8.29	12.52	14.85	16.99	21.41
9	-21.20	-15.38	-13.45	-10.52	-5.63	2.07	9.83	14.83	17.59	20.12	25.35
10	-25.44	-19.72	-16.23	-12.95	-7.01	2.21	11.42	17.37	20.64	23.65	29.86
11	-30.03	-22.78	-19.27	-15.42	-8.51	2.25	13.01	19.94	23.77	27.28	34.52
12	-35.71	-27.23	-23.13	-18.66	-10.65	2.62	14.61	22.72	27.19	31.20	39.76
13	-37.92	-29.10	-24.93	-20.13	-11.73	1.36	14.45	22.49	27.54	31.81	40.63
14	-34.79	-27.03	-23.27	-19.16	-11.76	-0.24	11.27	18.69	22.78	26.54	34.30
15	-28.40	-22.51	-19.25	-17.36	-10.92	-2.10	6.55	12.19	15.29	18.12	24.02
16	-22.16	-17.88	-15.78	-13.51	-9.40	-3.02	3.36	7.47	9.73	11.82	16.11
17	-17.59	-14.88	-12.92	-11.24	-8.17	-3.41	1.35	4.42	6.11	7.65	10.87
18	-15.13	-12.64	-11.44	-10.14	-7.70	-4.08	-0.40	1.98	3.29	4.49	6.97
19	-14.28	-12.09	-11.01	-9.84	-7.73	-4.46	-1.18	.93	2.09	3.16	5.37
20	-14.78	-12.62	-11.54	-10.44	-8.38	-5.18	-1.98	.08	1.22	2.26	4.42
21	-14.17	-12.24	-11.30	-10.23	-8.43	-5.56	-2.69	-.85	.17	1.11	3.04
22	-15.28	-13.22	-12.22	-11.12	-9.15	-6.09	-3.02	-1.04	.05	1.05	3.11
23	-15.97	-13.87	-12.85	-11.75	-9.74	-6.62	-3.50	-1.49	-.38	.64	2.74
24	-16.24	-14.10	-13.15	-12.07	-10.08	-7.00	-3.92	-1.93	-.84	.17	2.24
25	-17.03	-14.49	-13.56	-12.73	-10.69	-7.51	-4.34	-2.30	-1.17	-.13	2.00
26	-17.77	-15.52	-14.42	-13.24	-11.09	-7.74	-4.40	-2.25	-1.06	.03	2.28
27	-18.47	-16.12	-14.93	-13.74	-11.49	-8.01	-4.52	-2.27	-1.04	.10	2.45
28	-18.07	-15.64	-14.47	-13.19	-10.87	-7.27	-3.67	-1.35	-.07	1.11	3.53
29	-17.55	-15.24	-14.13	-12.91	-10.70	-7.28	-3.85	-1.64	-.43	.69	3.00
30	-17.56	-15.17	-14.02	-12.76	-10.88	-6.94	-3.40	-1.12	-.14	1.30	3.68
31	-18.36	-15.75	-14.49	-13.12	-10.62	-6.75	-2.88	-.39	.98	2.25	4.85
32	-20.60	-17.47	-15.96	-14.31	-11.31	-6.67	-2.03	.96	2.61	4.13	7.25
33	-20.56	-17.55	-16.09	-14.50	-11.62	-7.15	-2.68	.21	1.79	3.25	6.26
34	-22.96	-19.60	-17.97	-16.19	-12.97	-7.98	-2.99	.23	2.01	3.64	7.00
35	-23.39	-20.09	-18.49	-16.75	-13.60	-8.70	-3.80	-.64	1.09	2.69	5.99
36	-23.44	-20.30	-18.79	-17.13	-14.13	-9.48	-4.83	-1.82	-.17	1.35	4.88
37	-24.41	-21.18	-19.61	-17.91	-14.82	-10.03	-5.24	-2.14	-.44	1.12	4.35
38	-25.70	-22.28	-20.62	-18.81	-15.53	-10.44	-5.36	-2.07	-.27	1.39	4.82
39	-27.73	-24.05	-22.26	-20.32	-16.79	-11.33	-5.86	-2.33	-.39	1.39	5.08
40	-29.25	-25.51	-23.71	-21.74	-18.17	-12.63	-7.09	-3.52	-1.55	.25	3.99
41	-31.97	-27.92	-25.95	-23.82	-19.75	-13.92	-7.91	-4.03	-1.89	.07	4.13
42	-30.22	-26.69	-24.98	-23.12	-19.75	-14.51	-9.28	-5.90	-4.04	-2.34	1.19
43	-30.49	-27.03	-25.36	-23.54	-20.23	-15.10	-9.97	-6.67	-4.85	-3.17	.29
44	-30.26	-26.79	-25.11	-23.28	-19.96	-14.81	-9.66	-6.34	-4.51	-2.83	.64
45	-31.72	-27.87	-26.01	-23.98	-20.29	-14.58	-8.86	-5.18	-3.15	-1.28	2.57
46	-33.56	-29.29	-27.21	-24.96	-20.86	-14.51	-8.16	-4.07	-1.81	-.26	4.54
47	-35.46	-30.75	-28.46	-25.98	-21.46	-14.46	-7.46	-2.94	-.45	1.83	6.55
48	-36.53	-31.56	-29.15	-26.53	-21.78	-14.41	-7.03	-2.28	-.34	2.75	7.72
49	-39.11	-33.55	-30.86	-27.93	-22.62	-14.37	-6.12	-.80	2.12	4.81	10.37
50	-37.48	-32.08	-29.47	-26.62	-21.45	-13.43	-5.41	-.24	2.61	5.22	10.62
51	-38.80	-33.14	-30.40	-27.41	-21.99	-13.58	-5.17	.25	3.23	5.98	11.64
52	-36.92	-31.87	-29.43	-26.77	-21.94	-14.45	-6.96	-2.13	.53	2.97	8.02
53	-37.62	-32.62	-30.20	-27.57	-22.78	-15.37	-7.95	-3.17	-.53	1.89	6.89
54	-40.62	-35.20	-32.58	-29.72	-24.54	-16.49	-8.45	-3.27	-.41	2.21	7.63
55	-44.39	-38.33	-35.39	-32.20	-26.40	-17.41	-8.41	-2.61	.58	3.51	9.57
56	-45.89	-39.68	-36.67	-33.40	-27.45	-18.23	-9.02	-3.07	.20	3.21	9.42
57	-46.60	-40.00	-36.81	-33.33	-27.01	-17.21	-7.41	-1.09	2.39	5.59	12.14
58	-53.52	-45.65	-41.88	-37.68	-30.15	-18.46	-6.77	.77	4.92	8.74	16.61
59	-49.31	-43.17	-39.90	-36.34	-29.89	-19.88	-9.06	-3.41	.15	3.41	10.16
60	-63.91	-54.39	-49.78	-44.76	-35.65	-21.51	-7.38	1.73	6.75	11.36	20.88
61	-55.69	-47.80	-43.98	-39.83	-32.28	-20.57	-8.87	-1.32	2.83	6.65	14.54
62	-52.58	-45.18	-41.60	-37.70	-30.62	-19.64	-8.66	-1.58	2.32	5.90	13.29
63	-49.25	-42.39	-39.07	-35.45	-28.89	-18.71	-8.52	-1.96	1.66	4.98	11.84
64	-46.15	-39.78	-36.69	-33.33	-27.23	-17.78	-8.32	-2.22	1.14	4.22	10.59
65	-43.04	-37.15	-34.31	-31.20	-25.57	-16.84	-8.11	-2.48	.62	3.47	9.35
66	-39.92	-34.53	-31.91	-29.07	-23.91	-15.90	-7.89	-2.73	.11	2.73	8.12
67	-36.82	-31.91	-29.54	-26.95	-22.25	-14.97	-7.69	-2.99	-.41	1.97	6.87
68	-33.50	-29.13	-27.01	-24.71	-20.53	-14.04	-7.55	-3.36	-1.06	1.06	5.43
69	-30.40	-26.52	-24.63	-22.59	-18.87	-13.10	-7.34	-3.62	-1.57	.31	4.19
70	-27.29	-23.90	-22.25	-20.46	-17.21	-12.17	-7.12	-3.87	-2.08	-.44	2.96

TABLE 2.7. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

JULY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-4.66	-3.38	-2.75	-2.08	-1.85	1.06	2.06	4.19	4.07	5.49	6.78
1	-8.00	-5.55	-4.36	-3.06	-2.71	2.93	5.57	8.92	12.22	11.41	13.85
2	-9.25	-6.63	-5.37	-3.95	-3.49	2.38	6.26	9.76	16.14	11.40	14.01
3	-9.55	-6.90	-5.62	-4.23	-3.70	2.23	5.15	3.68	10.33	11.36	14.20
4	-10.27	-7.51	-6.17	-4.72	-4.07	2.02	6.12	9.76	10.21	11.55	14.31
5	-10.81	-8.04	-6.70	-5.24	-4.52	1.52	5.63	3.23	9.74	11.39	13.85
6	-11.94	-9.03	-7.62	-6.00	-5.31	1.00	5.32	8.10	9.03	11.04	13.95
7	-13.39	-10.30	-8.80	-7.17	-6.41	0.39	4.97	7.93	9.56	11.05	14.14
8	-15.80	-12.31	-10.61	-8.77	-7.93	-0.24	4.25	8.30	11.14	11.83	15.33
9	-19.88	-15.65	-13.60	-11.37	-10.32	-1.05	5.23	9.23	11.51	13.56	17.79
10	-23.73	-18.81	-16.43	-13.85	-12.62	-1.82	5.42	10.20	12.90	15.18	20.10
11	-27.54	-21.97	-19.20	-16.32	-14.94	-2.70	5.57	10.91	13.35	16.56	22.13
12	-30.95	-24.87	-21.93	-18.72	-17.06	-3.68	5.15	10.97	14.17	17.11	23.19
13	-33.76	-27.40	-24.32	-20.96	-19.07	-4.62	4.01	10.10	13.46	16.54	22.97
14	-31.50	-25.83	-23.08	-20.09	-18.05	-5.25	2.20	7.63	10.00	13.37	19.05
15	-25.86	-21.40	-19.24	-15.99	-14.63	-6.01	0.61	4.83	7.23	9.36	13.34
16	-20.01	-16.69	-15.08	-12.33	-10.15	-5.21	-0.28	2.90	4.05	6.26	9.59
17	-16.34	-13.80	-12.56	-11.22	-9.79	-5.01	-1.23	1.21	2.55	3.79	6.33
18	-14.10	-12.10	-11.14	-10.09	-8.18	-5.22	-2.05	-0.34	0.71	1.67	2.67
19	-14.93	-12.94	-11.98	-10.94	-9.03	-6.03	-3.14	-1.23	-0.19	0.78	2.76
20	-15.76	-13.84	-12.91	-11.90	-10.06	-7.22	-4.37	-2.53	-1.52	-0.59	1.33
21	-16.03	-14.20	-13.32	-12.36	-10.61	-7.91	-5.20	-3.45	-2.40	-1.61	0.22
22	-17.44	-15.83	-14.95	-13.39	-11.46	-8.47	-5.47	-3.55	-2.48	-1.51	0.51
23	-18.63	-16.47	-15.42	-14.28	-12.20	-9.99	-5.78	-3.70	-2.56	-1.51	0.65
24	-18.52	-16.51	-15.54	-14.42	-12.56	-9.58	-6.00	-4.68	-3.62	-2.65	0.64
25	-19.80	-17.89	-16.47	-15.36	-13.34	-10.20	-7.07	-5.05	-3.93	-2.91	0.80
26	-20.40	-18.19	-17.12	-15.96	-13.84	-10.56	-7.28	-5.17	-4.00	-2.93	0.72
27	-21.77	-19.32	-18.14	-16.85	-14.51	-10.87	-7.24	-4.89	-3.50	-2.42	0.63
28	-21.69	-19.82	-18.33	-17.13	-14.96	-11.60	-8.24	-6.07	-4.87	-3.79	0.51
29	-20.99	-18.82	-17.77	-16.62	-14.54	-11.31	-8.08	-6.00	-4.86	-3.80	0.63
30	-21.78	-19.33	-18.18	-16.95	-14.65	-11.13	-7.61	-5.34	-4.09	-2.94	0.57
31	-22.35	-19.77	-18.52	-17.16	-14.69	-10.87	-7.04	-4.57	-3.21	-1.96	0.62
32	-22.41	-19.75	-18.46	-17.06	-14.51	-10.56	-6.61	-4.06	-2.65	-1.37	1.29
33	-22.13	-19.56	-18.32	-16.97	-14.51	-10.70	-6.89	-4.44	-3.09	-1.84	0.72
34	-23.63	-20.89	-19.57	-18.12	-15.50	-11.44	-7.38	-4.76	-3.32	-1.99	0.74
35	-25.32	-22.40	-20.98	-19.84	-16.64	-12.30	-7.96	-5.16	-3.62	-2.20	0.72
36	-26.12	-23.18	-21.76	-20.21	-17.40	-13.04	-8.69	-5.88	-4.35	-2.91	0.03
37	-29.24	-25.81	-24.30	-22.64	-19.36	-14.42	-9.88	-6.30	-4.58	-2.93	0.40
38	-32.66	-28.65	-26.70	-24.58	-20.73	-14.77	-10.80	-7.45	-5.83	-3.89	3.13
39	-32.55	-28.69	-26.82	-24.78	-21.08	-15.35	-9.62	-5.92	-5.88	-2.01	1.85
40	-34.74	-30.72	-28.78	-26.67	-22.83	-16.87	-10.32	-7.07	-6.96	-3.02	1.00
41	-35.13	-31.28	-29.42	-27.39	-23.70	-17.98	-12.27	-8.58	-6.55	-4.64	0.93
42	-35.62	-31.88	-30.07	-28.10	-24.51	-18.96	-13.41	-9.82	-7.85	-6.04	2.30
43	-37.08	-33.30	-31.47	-29.48	-25.86	-20.25	-14.64	-11.02	-9.03	-7.20	3.42
44	-39.29	-35.08	-33.04	-30.82	-26.79	-20.54	-14.28	-10.25	-8.03	-5.99	1.78
45	-39.01	-34.74	-32.68	-30.43	-26.34	-20.00	-13.67	-9.58	-7.33	-5.27	1.00
46	-40.66	-35.98	-33.71	-31.25	-26.76	-19.82	-12.87	-8.39	-5.92	-3.65	1.03
47	-40.07	-35.52	-33.31	-30.91	-26.56	-19.80	-13.04	-8.68	-6.28	-4.07	0.48
48	-40.69	-35.89	-33.57	-31.04	-26.45	-19.32	-12.20	-7.60	-5.07	-2.75	2.05
49	-41.73	-36.65	-34.19	-31.52	-26.66	-19.12	-11.58	-6.72	-4.04	-1.58	3.49
50	-43.38	-37.90	-35.24	-32.36	-27.11	-18.98	-10.85	-5.60	-2.71	-0.67	5.42
51	-44.01	-38.48	-35.80	-32.88	-27.59	-19.37	-11.16	-5.86	-2.95	-0.77	5.27
52	-45.51	-39.71	-36.90	-33.84	-28.28	-19.67	-11.05	-5.49	-2.44	-0.38	6.19
53	-48.63	-42.11	-38.92	-35.45	-29.14	-19.37	-9.59	-3.29	-1.18	0.37	9.95
54	-48.05	-41.67	-38.59	-35.23	-29.12	-19.66	-10.20	-4.10	-0.74	2.35	8.72
55	-49.17	-42.47	-39.22	-35.69	-29.27	-19.32	-9.37	-2.95	-0.58	3.82	10.53
56	-52.56	-44.97	-41.29	-37.29	-30.02	-18.74	-7.47	-2.20	3.80	7.49	15.07
57	-53.18	-45.62	-41.96	-37.98	-30.74	-19.53	-8.31	-1.08	2.91	6.57	14.12
58	-51.17	-44.24	-40.88	-37.22	-30.58	-20.28	-9.98	-3.34	0.32	3.68	10.61
59	-54.09	-46.40	-42.68	-38.63	-31.28	-19.87	-8.47	-1.12	2.93	6.65	14.34
60	-56.62	-48.60	-44.72	-40.50	-32.83	-20.94	-9.04	-1.37	2.85	6.71	14.75
61	-59.31	-50.48	-46.20	-41.55	-33.10	-19.99	-6.88	1.57	6.23	10.51	19.34
62	-56.03	-47.73	-43.70	-39.33	-31.38	-19.05	-6.72	1.24	5.61	9.64	17.94
63	-52.85	-45.05	-41.27	-37.15	-29.68	-18.10	-6.52	0.95	5.07	8.85	16.65
64	-49.58	-42.30	-38.78	-34.94	-27.97	-17.16	-6.35	0.62	4.46	7.99	15.27
65	-46.54	-39.73	-36.43	-32.84	-26.32	-16.21	-6.10	0.42	4.00	7.30	14.11
66	-43.30	-37.00	-33.95	-30.64	-24.61	-15.27	-5.93	0.10	3.41	6.46	12.76
67	-40.07	-34.29	-31.49	-28.44	-22.90	-14.32	-5.74	-0.21	2.84	5.64	11.42
68	-37.16	-31.82	-29.23	-26.42	-21.31	-13.38	-5.46	-0.35	2.47	5.05	10.39
69	-33.74	-28.96	-26.64	-24.12	-19.54	-12.44	-5.33	-0.75	1.77	4.08	9.87
70	-30.59	-26.30	-24.22	-21.96	-17.86	-11.49	-5.13	-1.03	1.23	3.31	7.60

TABLE 2.8. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

AUGUST

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-6.09	-4.66	-3.9f	-3.21	-1.84	.29	2.41	3.78	4.54	5.23	6.66
1	-10.12	-7.46	-6.17	-4.77	-2.22	1.73	5.68	9.23	9.63	10.92	13.59
2	-10.83	-8.06	-6.72	-5.26	-2.61	1.49	5.60	8.25	9.71	11.05	13.82
3	-11.12	-8.29	-6.91	-5.42	-2.71	1.49	5.69	9.40	9.30	11.27	14.10
4	-11.49	-8.54	-7.11	-5.56	-2.74	1.64	6.01	8.83	10.39	11.82	14.76
5	-12.67	-9.43	-7.94	-6.27	-3.22	1.51	6.23	9.28	10.96	12.50	15.69
6	-14.14	-10.75	-9.12	-7.33	-4.00	.93	5.95	9.19	10.97	12.61	16.00
7	-15.53	-11.97	-10.22	-8.31	-4.86	.51	5.87	9.33	11.23	12.98	16.60
8	-17.12	-13.31	-11.46	-9.45	-5.80	-.14	5.52	9.17	11.18	13.07	16.84
9	-19.74	-15.44	-13.36	-11.09	-6.98	-.59	5.79	9.30	12.17	14.25	18.55
10	-24.47	-19.21	-16.66	-13.89	-8.86	-1.05	6.75	11.78	14.56	17.00	22.36
11	-28.39	-22.34	-19.41	-16.23	-10.44	-1.46	7.51	13.30	16.43	19.42	25.47
12	-32.07	-25.35	-22.10	-18.56	-12.13	-2.16	7.81	14.24	17.70	21.04	27.75
13	-35.44	-28.61	-23.31	-19.71	-13.17	-3.04	7.09	13.63	17.22	20.53	27.36
14	-39.96	-32.06	-26.20	-21.09	-14.44	-3.67	5.09	10.74	13.85	16.71	22.61
15	-44.15	-35.94	-29.34	-23.63	-15.90	-4.30	2.85	6.88	9.10	11.13	15.34
16	-47.10	-38.99	-32.48	-26.43	-17.85	-5.22	1.41	4.40	6.04	7.55	10.67
17	-49.55	-41.11	-34.54	-28.46	-19.54	-6.23	-.05	2.29	3.57	4.76	7.20
18	-51.55	-42.52	-35.54	-29.46	-20.46	-6.50	-1.48	.47	1.55	2.53	4.57
19	-53.67	-44.65	-37.63	-31.53	-22.52	-7.71	-2.72	-.80	.26	1.23	3.25
20	-55.24	-46.35	-39.44	-33.45	-24.65	-8.85	-4.05	-2.26	-1.26	-.35	1.53
21	-56.58	-47.87	-41.09	-35.24	-26.84	-10.31	-5.49	-3.21	-2.25	-1.39	.43
22	-57.54	-48.69	-42.79	-36.92	-28.10	-11.04	-6.30	-3.78	-2.80	-1.90	-.05
23	-58.04	-49.34	-43.53	-37.59	-29.32	-11.92	-7.11	-4.50	-3.59	-2.40	.62
24	-58.59	-49.88	-44.06	-38.06	-30.49	-12.86	-7.86	-5.09	-4.08	-2.97	1.15
25	-58.86	-50.14	-44.32	-38.32	-30.75	-13.86	-8.66	-5.82	-4.82	-3.71	1.86
26	-59.18	-50.46	-44.64	-38.64	-31.07	-14.91	-9.49	-6.66	-5.66	-4.56	2.61
27	-59.54	-50.82	-45.00	-39.00	-31.43	-16.01	-10.41	-7.51	-6.66	-5.66	3.41
28	-59.94	-51.22	-45.40	-39.40	-31.83	-17.15	-11.45	-8.59	-7.79	-6.91	4.26
29	-60.38	-51.67	-45.85	-39.85	-32.30	-18.45	-12.63	-9.81	-9.01	-8.11	5.16
30	-60.86	-52.15	-46.34	-40.34	-32.81	-19.59	-13.86	-11.07	-10.26	-9.36	6.11
31	-61.38	-52.67	-46.86	-40.86	-33.36	-20.89	-15.15	-12.37	-11.56	-10.66	7.11
32	-61.94	-53.23	-47.42	-41.42	-33.94	-22.09	-16.49	-13.93	-12.91	-12.01	8.16
33	-62.54	-53.83	-48.02	-42.02	-34.56	-23.45	-17.91	-15.54	-14.41	-13.51	9.26
34	-63.18	-54.47	-48.66	-42.66	-35.22	-24.97	-19.45	-17.19	-16.05	-15.15	10.41
35	-63.86	-55.15	-49.34	-43.34	-35.94	-26.65	-21.15	-18.91	-17.81	-16.81	11.61
36	-64.58	-55.87	-49.96	-43.96	-36.70	-28.49	-23.09	-20.81	-19.71	-18.71	12.86
37	-65.34	-56.63	-50.62	-44.62	-37.50	-30.59	-24.41	-22.81	-20.71	-19.71	14.16
38	-66.14	-57.43	-51.42	-45.42	-38.34	-33.86	-26.01	-24.91	-22.21	-21.21	15.51
39	-66.98	-58.27	-52.26	-46.26	-39.22	-37.41	-27.81	-26.91	-24.21	-23.21	16.91
40	-67.86	-59.15	-53.14	-47.14	-40.24	-41.26	-30.01	-29.11	-26.51	-25.51	18.36
41	-68.78	-60.07	-54.06	-48.06	-41.40	-45.41	-32.41	-31.51	-28.91	-27.91	19.86
42	-69.74	-61.03	-55.02	-49.02	-42.68	-50.01	-34.81	-34.01	-31.41	-30.41	21.41
43	-70.74	-62.03	-56.02	-50.02	-44.06	-54.91	-37.41	-36.61	-34.01	-33.01	23.01
44	-71.78	-63.07	-57.06	-51.06	-45.54	-60.11	-40.11	-39.21	-36.61	-35.61	24.61
45	-72.86	-64.15	-58.14	-52.14	-47.22	-65.61	-42.81	-41.91	-39.31	-38.31	26.21
46	-73.98	-65.27	-59.26	-53.26	-48.98	-71.41	-45.61	-44.71	-42.11	-41.11	27.81
47	-75.14	-66.43	-60.42	-54.42	-50.86	-77.51	-48.51	-47.61	-45.01	-44.01	29.41
48	-76.34	-67.63	-61.62	-55.62	-52.34	-83.91	-51.51	-50.61	-48.01	-47.01	31.01
49	-77.58	-68.87	-62.86	-56.86	-53.94	-90.61	-54.61	-53.71	-51.11	-50.11	32.61
50	-78.86	-70.15	-64.14	-58.14	-55.70	-97.61	-57.81	-56.91	-54.31	-53.31	34.21
51	-80.18	-71.47	-65.46	-59.46	-57.60	-104.91	-61.11	-60.21	-57.61	-56.61	35.81
52	-81.54	-72.83	-66.82	-60.82	-59.54	-112.51	-64.51	-63.61	-61.01	-60.01	37.41
53	-82.94	-74.23	-68.22	-62.22	-61.52	-120.41	-68.01	-67.11	-64.51	-63.51	39.01
54	-84.38	-75.67	-69.66	-63.66	-63.64	-128.61	-71.51	-70.61	-68.01	-67.01	40.61
55	-85.86	-77.15	-71.14	-65.14	-65.80	-137.11	-75.11	-74.21	-71.61	-70.61	42.21
56	-87.38	-78.67	-72.66	-66.66	-68.00	-145.91	-78.71	-77.81	-75.21	-74.21	43.81
57	-88.94	-80.23	-74.22	-68.22	-70.34	-155.01	-82.41	-81.51	-78.91	-77.91	45.41
58	-90.54	-81.83	-75.82	-69.82	-72.82	-164.41	-86.11	-85.21	-82.61	-81.61	47.01
59	-92.18	-83.47	-77.46	-71.46	-75.40	-174.11	-89.91	-89.01	-86.41	-85.41	48.61
60	-93.86	-85.15	-79.14	-73.14	-78.00	-184.11	-93.81	-92.91	-90.31	-89.31	50.21
61	-95.58	-86.87	-80.86	-74.86	-80.70	-194.41	-97.81	-96.91	-94.31	-93.31	51.81
62	-97.34	-88.63	-82.62	-76.62	-83.54	-204.91	-101.91	-101.01	-98.41	-97.41	53.41
63	-99.14	-90.43	-84.42	-78.62	-86.52	-215.61	-106.11	-105.21	-102.61	-101.61	55.01
64	-100.98	-92.27	-86.26	-80.46	-89.64	-226.61	-110.41	-109.51	-106.91	-105.91	56.61
65	-102.86	-94.15	-88.14	-82.34	-92.80	-237.91	-114.81	-113.91	-111.31	-110.31	58.21
66	-104.78	-96.07	-90.06	-84.26	-96.10	-249.41	-119.31	-118.41	-115.81	-114.81	59.81
67	-106.74	-98.03	-92.02	-86.22	-99.54	-261.11	-123.91	-123.01	-120.41	-119.41	61.41
68	-108.74	-100.03	-94.02	-88.22	-102.82	-273.01	-128.61	-127.71	-125.11	-124.11	63.01
69	-110.78	-102.07	-96.06	-90.26	-106.24	-285.11	-133.41	-132.51	-129.91	-128.91	64.61
70	-112.86	-104.15	-98.14	-92.34	-109.80	-297.41	-138.31	-137.41	-134.81	-133.81	66.21

TABLE 2.2. CAPS KENNEDY HEAD- AND TAILWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

SEPTEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.57	-8.44	-7.40	-6.27	-4.23	-1.06	2.11	4.16	5.23	6.32	8.46
1	-18.88	-14.80	-12.82	-10.66	-6.75	-4.68	5.38	9.30	11.45	13.43	17.52
2	-18.12	-14.03	-12.05	-9.90	-5.98	-0.8	6.15	10.07	12.22	14.20	19.29
3	-17.02	-13.05	-11.13	-9.04	-5.24	.65	6.55	10.35	12.44	14.36	19.32
4	-16.75	-12.78	-10.85	-8.76	-4.96	.94	6.84	10.64	12.74	14.66	18.63
5	-17.79	-13.60	-11.56	-9.35	-5.34	.89	7.12	11.14	13.35	15.39	19.53
6	-18.77	-14.38	-12.25	-9.93	-5.73	.79	7.31	11.51	13.82	15.95	20.34
7	-20.42	-15.61	-13.28	-10.74	-6.13	1.01	9.15	12.76	15.23	17.62	22.43
8	-22.67	-17.31	-14.71	-11.89	-6.76	1.19	9.14	14.27	17.09	19.69	25.05
9	-24.47	-18.60	-15.76	-12.67	-7.06	1.65	10.36	15.97	19.07	21.91	27.77
10	-27.39	-20.82	-17.64	-14.18	-7.90	1.85	11.60	17.88	21.34	24.52	31.09
11	-30.43	-23.17	-19.65	-15.82	-8.87	1.91	12.70	19.65	23.43	27.00	34.26
12	-32.60	-24.88	-21.09	-17.00	-9.58	1.93	13.44	20.87	24.95	28.71	36.47
13	-34.32	-26.28	-22.39	-18.14	-10.44	1.50	13.44	21.14	25.38	29.27	37.32
14	-32.57	-25.17	-21.59	-17.69	-10.62	.36	11.34	19.42	22.31	25.89	33.29
15	-26.42	-20.64	-17.84	-14.79	-9.26	-.68	7.90	13.43	16.48	19.28	25.06
16	-21.17	-16.78	-14.65	-12.33	-8.12	-1.60	4.93	9.14	11.46	13.58	17.98
17	-16.16	-12.96	-11.41	-9.72	-6.65	-1.90	2.85	5.71	7.60	9.15	12.35
18	-14.34	-11.70	-10.42	-9.03	-6.50	-2.58	1.34	3.87	5.27	6.55	9.19
19	-13.65	-11.40	-10.30	-9.12	-6.96	-3.61	-.26	1.89	3.08	4.17	6.43
20	-13.70	-11.63	-10.62	-9.53	-7.54	-4.46	-1.38	.60	1.70	2.70	4.77
21	-13.78	-11.82	-10.87	-9.83	-7.96	-5.05	-2.14	-.27	.77	1.72	3.67
22	-14.04	-12.17	-11.26	-10.27	-8.48	-5.69	-2.91	-1.11	-.12	.79	2.66
23	-14.75	-12.81	-11.88	-10.36	-9.00	-6.13	-3.26	-1.41	-.39	.59	2.43
24	-15.74	-13.68	-12.69	-11.60	-9.64	-6.58	-3.53	-1.67	-.48	.51	2.57
25	-16.91	-14.70	-13.63	-12.46	-10.34	-7.06	-3.77	-1.65	-.49	.59	2.80
26	-17.53	-15.26	-14.16	-12.96	-10.78	-7.41	-4.04	-1.86	-.66	.44	2.71
27	-18.14	-15.75	-14.60	-13.34	-11.06	-7.52	-3.99	-1.71	-.45	.71	3.09
28	-19.48	-16.57	-15.17	-13.66	-10.90	-6.63	-2.35	-.40	1.92	3.31	6.19
29	-19.26	-16.42	-15.04	-13.54	-10.82	-6.60	-2.38	.34	1.84	3.21	6.06
30	-19.57	-16.75	-15.40	-12.91	-10.22	-6.05	-1.88	.82	2.30	3.66	6.47
31	-18.31	-15.34	-13.91	-12.34	-9.51	-5.10	-.70	2.14	3.70	5.14	8.10
32	-18.82	-15.65	-14.11	-12.44	-9.40	-4.68	.03	3.07	4.74	6.28	9.45
33	-18.76	-15.48	-13.91	-12.19	-9.06	-4.21	.64	3.77	5.49	7.07	10.34
34	-18.28	-15.07	-13.52	-11.82	-8.75	-3.98	.79	3.86	5.55	7.11	10.32
35	-18.54	-16.05	-14.34	-12.48	-9.10	-3.86	1.38	4.76	6.62	8.33	11.85
36	-19.52	-16.05	-14.36	-12.53	-9.21	-4.05	1.10	4.43	6.26	7.94	11.42
37	-22.04	-18.07	-16.14	-14.04	-10.24	-4.34	1.56	5.36	7.46	9.38	13.36
38	-22.66	-18.65	-16.70	-14.59	-10.75	-4.80	1.15	5.00	7.11	9.05	13.06
39	-22.64	-18.59	-16.63	-14.50	-10.62	-4.61	1.40	5.27	7.41	9.37	13.42
40	-24.71	-20.17	-17.97	-15.58	-11.23	-4.49	2.25	6.60	8.99	11.19	15.73
41	-27.95	-22.80	-20.30	-17.58	-12.64	-4.99	2.67	7.61	10.33	12.83	17.99
42	-29.41	-24.10	-21.58	-18.73	-13.65	-5.78	2.10	7.18	9.98	12.55	17.85
43	-31.88	-26.05	-23.23	-20.16	-14.58	-5.93	2.71	8.29	11.36	14.19	20.01
44	-29.60	-23.95	-21.21	-19.23	-12.81	-4.42	3.97	9.39	12.37	15.10	20.76
45	-25.70	-20.67	-18.23	-15.58	-10.77	-3.30	4.16	8.98	11.63	14.07	19.10
46	-25.51	-20.14	-17.58	-14.70	-9.56	-1.58	6.40	11.55	14.38	16.98	22.36
47	-23.10	-18.09	-15.66	-13.01	-8.21	-.77	6.67	11.47	14.12	16.54	21.56
48	-22.62	-17.73	-15.36	-12.77	-8.09	-.82	6.44	11.13	13.71	16.08	20.98
49	-22.45	-17.32	-14.83	-12.12	-7.21	.41	8.03	12.95	15.66	18.14	23.28
50	-22.23	-16.88	-14.29	-11.47	-6.35	1.59	9.54	14.66	17.48	20.07	25.42
51	-25.44	-19.42	-16.51	-13.33	-7.57	1.36	10.30	16.06	19.24	22.15	28.17
52	-25.40	-19.46	-16.55	-13.38	-7.63	1.30	10.22	15.98	19.15	22.06	28.07
53	-25.81	-19.39	-16.29	-12.90	-6.76	2.76	12.28	18.43	21.81	24.92	31.33
54	-26.25	-19.40	-16.08	-12.47	-5.91	4.25	14.42	20.98	24.59	27.90	34.75
55	-27.00	-19.94	-16.52	-12.79	-6.03	4.45	14.94	21.70	25.42	28.84	35.91
56	-25.27	-18.53	-15.27	-11.72	-5.27	4.74	14.78	21.19	24.75	28.01	34.75
57	-20.17	-14.38	-11.57	-9.52	-2.97	5.63	14.23	19.77	22.83	25.63	31.43
58	-14.91	-9.87	-6.98	-3.67	1.45	9.38	17.31	22.42	25.24	27.82	33.17
59	-15.63	-10.06	-7.36	-4.42	.92	9.19	17.47	22.80	25.74	28.44	34.01
60	-22.83	-17.53	-13.89	-9.93	-2.75	8.40	19.54	26.73	30.69	34.10	41.83
61	-25.42	-17.49	-14.25	-10.28	-3.07	8.11	19.28	26.49	30.46	34.10	41.63
62	-25.93	-17.58	-14.02	-10.15	-3.11	7.80	18.71	25.75	29.62	33.18	40.53
63	-24.72	-17.48	-13.98	-10.16	-3.24	7.50	18.24	25.17	28.98	32.49	39.72
64	-24.23	-17.17	-13.76	-10.04	-3.28	7.28	17.67	24.53	28.19	31.57	38.62
65	-23.85	-16.94	-13.60	-9.96	-3.35	6.90	17.15	23.76	27.40	30.75	37.66
66	-23.47	-16.71	-13.44	-9.88	-3.42	6.61	16.63	23.10	26.66	29.93	36.68
67	-22.98	-16.41	-13.22	-9.75	-3.46	6.30	16.06	22.36	25.82	29.01	35.58
68	-22.76	-16.30	-13.18	-9.77	-3.59	6.00	15.59	21.78	25.18	28.31	34.77
69	-22.28	-16.00	-12.95	-9.64	-3.63	5.70	15.02	21.04	24.35	27.39	33.67
70	-21.98	-15.77	-12.80	-9.57	-3.70	5.40	14.50	20.37	23.60	26.57	32.70

TABLE 2.10. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

OCTOBER

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.93	-8.84	-7.87	-6.73	-4.73	-1.64	1.46	3.46	4.56	5.57	7.66
1	-19.44	-15.53	-13.63	-11.57	-7.82	-2.01	3.30	7.55	9.61	11.51	15.42
2	-17.37	-13.45	-11.57	-9.48	-5.72	-1.0	5.93	9.69	11.75	13.66	17.58
3	-16.13	-12.18	-10.27	-8.19	-4.42	1.44	7.30	11.07	13.15	15.06	19.01
4	-15.85	-11.78	-9.79	-7.62	-3.68	2.43	8.53	12.47	14.54	16.63	20.75
5	-17.44	-12.73	-10.54	-8.09	-3.64	2.26	10.16	14.61	17.06	19.31	23.95
6	-18.23	-13.64	-11.13	-8.40	-3.44	4.26	11.25	16.91	19.64	22.15	27.34
7	-20.86	-14.99	-12.16	-9.05	-3.43	5.29	14.01	19.63	22.77	25.57	31.45
8	-22.76	-16.17	-12.98	-9.60	-3.19	6.55	16.35	22.66	26.16	29.36	35.95
9	-25.96	-18.34	-14.65	-10.52	-3.34	7.37	19.23	26.57	30.59	34.22	41.92
10	-29.85	-21.05	-16.78	-12.42	-3.71	8.56	22.47	30.86	35.00	39.77	48.57
11	-33.03	-23.23	-18.56	-14.42	-4.08	10.33	24.37	34.20	39.34	44.06	53.82
12	-34.49	-24.29	-19.26	-15.00	-4.22	10.91	26.04	35.80	41.17	46.11	56.31
13	-32.24	-22.70	-18.07	-14.06	-3.93	10.22	24.37	33.50	39.52	43.14	52.64
14	-27.09	-19.02	-15.17	-10.86	-3.17	8.78	20.74	28.45	32.70	36.60	44.65
15	-21.69	-15.13	-12.04	-9.52	-2.40	7.25	16.89	23.11	26.54	29.68	36.13
16	-17.90	-12.74	-10.24	-7.51	-2.57	5.69	12.76	17.70	20.42	22.92	28.09
17	-14.79	-10.76	-8.91	-6.52	-2.33	3.14	9.12	12.97	15.23	17.04	21.07
18	-13.47	-10.19	-8.60	-6.87	-2.73	1.14	6.00	9.14	10.87	12.46	15.74
19	-12.72	-9.94	-8.10	-7.14	-4.43	-0.37	3.75	6.40	7.96	9.21	11.93
20	-12.20	-9.72	-8.51	-7.21	-4.03	-1.14	2.55	4.92	6.23	7.44	9.92
21	-12.22	-9.57	-8.73	-7.50	-3.55	-1.77	1.72	3.26	5.20	6.34	9.60
22	-12.15	-9.43	-8.88	-7.68	-3.55	-2.25	1.05	3.18	4.35	5.43	7.66
23	-12.71	-10.40	-9.23	-8.06	-3.55	-2.42	1.02	3.23	4.45	5.57	7.88
24	-12.90	-10.52	-9.36	-8.11	-3.63	-2.29	1.25	2.53	4.78	5.94	8.32
25	-13.29	-10.73	-9.57	-8.25	-3.85	-2.13	1.59	3.99	5.31	6.53	9.03
26	-14.37	-11.57	-10.21	-8.74	-4.05	-1.89	2.26	4.95	6.42	7.78	10.58
27	-14.84	-11.86	-10.42	-8.95	-4.00	-1.53	2.34	5.70	7.25	8.71	11.69
28	-15.75	-10.55	-8.99	-7.30	-4.23	-0.53	5.29	8.36	10.05	11.61	14.81
29	-15.03	-11.40	-9.63	-7.72	-4.24	1.16	6.56	10.04	11.96	13.72	17.36
30	-14.95	-11.17	-9.33	-7.34	-3.72	1.90	7.52	11.14	13.14	14.97	18.75
31	-14.81	-10.44	-8.92	-6.82	-3.02	2.87	8.77	12.57	14.56	16.59	20.56
32	-14.29	-10.15	-8.14	-5.96	-1.99	4.16	10.31	12.19	16.55	18.95	21.15
33	-14.85	-10.29	-8.09	-5.69	-1.33	5.43	12.19	16.55	18.95	21.15	25.70
34	-14.57	-9.94	-7.70	-5.26	-0.83	6.04	12.90	17.33	19.77	22.01	26.64
35	-19.58	-13.76	-10.94	-7.87	-2.31	6.33	14.96	20.53	23.60	26.41	32.23
36	-21.55	-15.22	-12.16	-8.83	-2.77	6.62	16.00	22.06	25.39	28.45	34.78
37	-22.43	-15.74	-12.46	-8.90	-2.43	7.60	17.64	24.11	27.67	30.94	37.70
38	-24.45	-17.03	-13.44	-9.53	-2.43	8.58	19.58	26.68	30.59	34.18	41.60
39	-22.17	-14.77	-11.18	-7.28	-2.20	10.78	21.77	28.85	32.75	36.34	43.74
40	-20.66	-13.21	-9.60	-5.67	1.46	12.53	23.59	30.73	34.65	38.26	45.72
41	-19.97	-12.50	-8.89	-4.95	2.19	13.27	24.35	31.50	35.43	39.05	46.51
42	-21.54	-13.41	-9.47	-5.19	2.59	14.65	26.72	34.50	38.78	42.72	50.85
43	-20.32	-12.34	-8.49	-4.27	3.37	15.21	27.05	34.69	38.90	42.76	50.74
44	-20.82	-12.36	-8.26	-3.80	4.31	16.87	29.43	37.54	42.00	46.10	54.56
45	-20.37	-11.64	-7.41	-2.80	5.56	18.52	31.49	39.85	44.46	48.69	57.42
46	-20.12	-11.08	-6.71	-1.94	6.71	20.13	33.54	42.19	46.96	51.33	60.37
47	-19.84	-10.55	-6.04	-1.14	7.76	21.56	35.36	44.26	49.16	53.67	62.96
48	-19.31	-9.75	-5.13	-0.09	9.05	23.24	37.42	46.56	51.60	56.22	65.78
49	-21.87	-11.40	-6.33	-0.82	9.20	24.73	40.26	50.28	55.80	60.86	71.33
50	-20.74	-10.34	-5.31	0.18	10.13	25.57	41.01	50.97	56.45	61.49	71.89
51	-21.17	-10.63	-5.52	0.03	10.12	25.77	41.42	51.51	57.07	62.17	72.71
52	-19.23	-8.77	-3.71	1.80	11.81	27.33	42.85	52.86	58.37	63.43	73.89
53	-16.65	-6.74	-1.93	3.29	12.78	27.50	42.22	51.71	56.93	61.74	71.65
54	-15.31	-5.56	-0.84	4.30	13.63	28.10	42.57	51.90	57.04	61.76	71.51
55	-16.55	-6.75	-2.00	3.17	12.55	27.09	41.64	51.02	56.19	60.94	70.74
56	-17.82	-7.86	-3.04	2.21	11.74	26.52	41.31	50.84	56.09	60.91	70.87
57	-19.65	-9.40	-4.44	0.96	10.77	25.98	41.19	51.00	56.40	61.37	71.61
58	-20.89	-10.59	-5.60	-0.17	9.68	24.97	40.26	50.11	55.54	60.53	70.83
59	-19.10	-9.25	-4.47	0.72	10.16	24.79	39.43	48.86	54.06	58.83	68.69
60	-22.37	-12.37	-7.52	-2.25	7.32	22.16	37.01	46.58	51.85	56.70	66.70
61	-21.18	-11.66	-7.04	-2.02	7.09	21.23	35.37	44.88	49.50	54.12	63.64
62	-21.10	-11.81	-7.30	-2.41	6.49	20.29	34.08	42.98	47.88	52.38	61.67
63	-20.73	-11.73	-7.37	-2.62	5.99	19.36	32.72	41.34	46.08	50.44	59.45
64	-20.50	-11.76	-7.53	-2.92	5.45	18.42	31.39	39.76	44.36	48.60	57.34
65	-20.43	-11.91	-7.79	-3.30	4.85	17.49	30.13	38.28	42.77	46.89	55.41
66	-20.22	-11.97	-7.97	-3.61	4.29	16.55	28.80	36.71	41.06	45.06	53.32
67	-20.02	-12.02	-8.14	-3.92	3.74	15.62	27.50	35.16	39.38	43.25	51.26
68	-19.72	-12.00	-8.26	-4.18	3.21	14.68	26.15	33.54	37.61	41.35	49.08
69	-19.70	-12.19	-8.55	-4.60	2.59	13.74	24.89	32.08	36.04	39.68	47.19
70	-19.56	-12.29	-8.77	-4.94	2.02	12.81	23.59	30.55	34.38	37.90	45.17

TABLE 2.11. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

NOVEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.20	-7.37	-6.40	-5.53	-3.79	-1.06	1.65	3.40	4.30	5.24	7.07
1	-19.50	-15.31	-13.20	-11.07	-7.06	-2.54	5.39	9.40	11.01	13.64	17.83
2	-19.14	-13.87	-11.30	-9.55	-5.45	-1.33	7.24	11.30	13.53	15.65	19.93
3	-17.51	-13.09	-10.95	-9.02	-4.30	2.17	8.77	12.05	14.20	17.42	21.84
4	-17.93	-13.13	-10.91	-9.33	-3.33	3.21	10.25	14.81	17.31	19.51	24.36
5	-19.31	-13.97	-11.38	-9.57	-3.46	4.47	12.20	17.50	20.00	22.30	28.24
6	-21.49	-15.35	-12.32	-10.15	-5.28	5.92	14.37	20.79	24.03	27.00	33.13
7	-23.62	-16.70	-13.35	-10.72	-3.00	7.18	17.45	24.07	27.72	31.27	37.58
8	-26.69	-18.81	-14.99	-10.83	-3.29	8.42	20.12	27.87	31.33	35.25	43.53
9	-30.04	-21.05	-16.60	-11.35	-3.35	10.00	23.34	31.55	35.00	41.04	50.02
10	-34.59	-24.28	-19.23	-13.96	-3.32	11.32	26.62	35.40	41.02	46.31	57.22
11	-37.67	-26.40	-20.94	-15.00	-4.22	12.51	29.44	40.00	45.07	51.43	62.70
12	-39.10	-27.34	-21.64	-15.44	-4.13	13.27	30.73	41.35	45.13	53.38	65.64
13	-34.35	-23.61	-18.41	-12.74	-2.46	17.49	29.44	39.72	45.39	50.00	61.33
14	-28.36	-19.71	-14.79	-9.95	-1.20	17.33	25.35	34.72	39.54	43.37	53.12
15	-22.40	-14.96	-11.35	-7.43	-0.30	10.74	21.79	28.91	32.04	36.44	43.89
16	-18.39	-12.33	-9.30	-5.20	-0.39	4.51	17.51	23.42	26.61	29.55	35.61
17	-15.58	-10.66	-8.28	-5.68	-0.97	6.33	13.63	18.34	20.04	23.32	28.24
18	-13.38	-9.46	-7.55	-5.43	-1.72	4.03	3.32	13.63	15.74	17.64	21.57
19	-11.91	-8.63	-7.04	-5.31	-2.17	2.70	7.57	10.71	12.44	14.03	17.31
20	-11.14	-8.23	-6.37	-5.30	-2.52	1.73	6.10	9.88	10.41	11.81	14.72
21	-11.58	-8.63	-7.20	-5.64	-2.92	1.56	5.54	8.77	10.32	11.75	14.70
22	-12.03	-8.95	-7.48	-5.34	-2.93	1.63	6.25	9.20	10.32	11.75	15.39
23	-11.77	-8.63	-7.11	-5.46	-2.45	2.21	6.87	9.88	11.57	13.00	16.20
24	-11.84	-8.55	-6.95	-5.22	-2.06	2.93	7.77	10.47	12.61	14.27	17.50
25	-13.18	-9.42	-7.60	-5.63	-2.05	3.50	9.05	12.63	14.61	16.42	20.16
26	-13.15	-9.25	-7.36	-5.31	-1.53	4.01	9.99	13.72	15.78	17.68	21.56
27	-12.74	-8.89	-6.73	-4.60	-0.72	5.29	11.70	15.17	17.21	19.27	23.32
28	-8.13	-4.18	-2.26	-1.18	3.60	9.46	15.32	19.10	21.18	23.09	27.04
29	-8.80	-4.37	-2.22	-1.11	4.36	10.94	17.52	21.76	24.10	26.24	30.64
30	-8.16	-3.49	-1.23	1.23	5.69	12.62	19.54	24.01	26.46	28.72	33.39
31	-8.12	-3.18	-0.79	1.81	6.54	13.88	21.21	25.94	28.54	30.94	35.88
32	-8.44	-3.13	-0.57	2.23	7.31	15.18	23.05	28.13	30.92	33.49	38.80
33	-8.05	-2.81	-0.32	3.29	8.69	17.06	25.43	30.82	33.79	36.52	42.16
34	-7.61	-1.74	1.11	4.20	9.83	18.55	27.27	32.89	35.99	38.83	44.71
35	-5.86	-3.24	-0.03	3.46	9.80	19.63	29.46	35.79	39.28	42.49	49.11
36	-5.53	-2.94	0.26	3.74	10.05	19.85	29.64	35.96	39.43	42.63	49.23
37	-8.92	-2.13	1.16	4.74	11.24	21.32	31.39	37.89	41.47	44.76	51.55
38	-11.15	-3.55	0.13	4.14	11.41	22.70	33.99	41.26	45.27	48.95	56.56
39	-9.71	-1.98	1.76	5.83	13.22	24.69	36.15	43.54	47.62	51.36	59.08
40	-9.05	-1.18	2.69	6.86	14.43	26.17	37.91	45.48	49.65	53.48	61.39
41	-10.38	-1.92	2.17	6.63	14.72	27.27	39.82	47.91	52.37	56.46	64.92
42	-9.34	-0.68	3.52	8.08	16.38	29.24	42.10	50.39	54.96	59.16	67.82
43	-8.94	0.28	4.74	9.50	18.43	32.11	45.79	54.62	59.88	63.34	73.15
44	-8.49	1.55	6.41	11.71	21.32	36.22	51.12	60.73	66.02	70.88	80.92
45	-6.74	3.61	8.62	14.08	23.99	39.35	54.71	64.62	70.08	75.09	85.44
46	-8.53	2.80	8.29	14.26	25.10	41.92	58.74	69.58	75.56	81.04	92.37
47	-6.60	5.06	10.70	16.84	27.99	45.29	62.59	73.74	79.88	85.53	97.18
48	-3.54	7.87	13.40	19.41	30.33	47.26	64.19	75.11	81.12	86.65	98.05
49	-2.64	8.90	14.49	20.58	31.63	48.76	65.90	76.95	83.03	88.62	100.17
50	-2.42	9.14	14.73	20.82	31.88	49.03	66.18	77.24	83.33	88.93	100.48
51	-0.95	10.10	15.46	21.29	31.87	48.28	64.69	75.27	81.10	86.45	97.51
52	-1.02	10.05	15.42	21.26	31.86	48.30	64.75	75.35	81.19	86.56	97.63
53	-3.09	8.45	14.04	20.12	31.16	48.24	65.40	76.45	82.53	88.11	99.65
54	-7.99	4.91	11.17	17.97	30.33	49.49	68.65	81.00	87.81	94.06	106.97
55	-7.03	5.36	11.36	17.89	29.75	48.15	66.54	78.40	84.93	90.94	103.33
56	-6.29	5.72	11.54	17.87	29.36	47.19	65.01	76.51	82.84	88.66	100.67
57	-2.60	8.68	14.15	20.09	30.49	47.64	64.38	75.18	81.13	86.59	97.89
58	2.38	12.71	17.72	23.17	33.06	48.41	63.75	73.65	79.10	84.10	94.44
59	2.53	13.36	18.64	24.36	34.74	50.85	66.96	77.34	83.06	88.32	99.17
60	1.54	12.72	18.18	24.03	34.74	51.34	67.93	78.64	84.53	89.95	101.13
61	3.55	13.99	19.05	24.55	34.54	50.04	65.54	75.53	81.03	86.09	96.53
62	3.15	13.39	18.35	23.74	33.55	48.74	63.94	73.75	79.14	84.10	94.34
63	2.75	12.78	17.65	22.94	32.55	47.45	62.35	71.96	77.25	82.11	92.15
64	2.34	12.18	16.95	22.13	31.55	46.15	60.76	70.17	75.36	80.12	89.96
65	1.74	11.42	16.11	21.22	30.49	44.86	59.24	68.51	73.61	78.30	87.99
66	1.43	10.89	15.47	20.46	29.52	43.57	57.61	66.67	71.66	76.24	85.71
67	1.03	10.29	14.77	19.66	28.52	42.27	56.02	64.89	69.77	74.26	83.52
68	0.62	9.69	14.07	18.85	27.53	40.98	54.43	63.10	67.88	72.27	81.33
69	0.22	9.08	13.37	18.05	26.53	39.68	52.83	61.32	65.99	70.28	79.14
70	-0.88	8.48	12.67	17.24	25.53	38.39	51.24	59.53	64.10	68.29	76.95

TABLE 2.12. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS

30 DEGREE FLIGHT AZIMUTH

DECEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.60	-5.81	-5.95	-5.01	-5.23	-6.64	2.02	3.73	4.67	5.54	7.33
1	-17.69	-13.55	-11.55	-9.77	-8.41	-7.74	6.88	10.04	13.02	15.03	19.17
2	-15.47	-11.34	-9.34	-7.17	-5.22	2.30	3.03	17.99	15.15	17.15	21.24
3	-15.45	-10.91	-8.73	-6.43	-4.14	4.52	11.17	15.46	17.82	20.00	24.48
4	-16.44	-11.23	-8.77	-6.03	-3.15	5.50	14.14	19.07	21.79	24.23	29.43
5	-18.04	-12.09	-9.20	-6.07	-3.37	8.40	17.30	22.55	26.17	29.01	34.96
6	-19.14	-12.57	-9.33	-6.22	-3.37	10.12	19.89	26.17	29.64	32.82	39.39
7	-20.82	-13.46	-9.90	-6.02	1.03	11.95	22.68	30.23	33.51	37.37	44.73
8	-23.48	-15.03	-11.07	-6.60	1.44	13.93	26.35	34.35	38.31	42.87	51.26
9	-26.61	-17.06	-12.44	-7.41	1.72	15.68	30.05	39.13	44.21	49.83	58.37
10	-29.74	-19.11	-13.26	-8.36	1.32	17.60	33.27	42.55	49.15	54.30	64.93
11	-31.20	-19.90	-14.50	-9.59	0.17	19.85	35.53	46.22	52.21	57.66	68.90
12	-30.30	-19.35	-13.77	-7.72	3.31	20.42	37.52	47.55	54.63	60.21	71.73
13	-27.04	-16.26	-11.07	-5.73	5.00	21.02	37.05	47.38	53.07	58.30	69.09
14	-21.16	-11.90	-7.42	-2.55	6.31	20.04	35.79	42.64	47.51	51.39	61.25
15	-16.87	-9.04	-5.24	-1.11	6.39	19.04	37.17	41.26	45.06	52.89	62.89
16	-14.59	-7.44	-4.57	-1.01	5.45	15.47	35.44	31.05	35.50	38.77	45.52
17	-14.41	-8.36	-5.43	-2.24	3.55	12.53	31.50	27.23	30.48	33.41	39.46
18	-13.01	-7.37	-5.52	-2.97	1.95	9.44	26.92	21.75	24.40	25.85	31.89
19	-12.92	-8.57	-6.44	-4.16	0.02	6.49	22.26	17.13	19.47	21.54	25.90
20	-11.38	-8.15	-6.34	-4.37	-0.20	4.75	18.23	13.90	15.83	17.64	21.37
21	-10.40	-8.67	-6.87	-4.91	-1.24	4.18	9.71	13.27	15.24	17.04	20.76
22	-11.40	-7.93	-6.33	-4.53	-1.20	3.31	3.33	12.15	13.35	15.61	19.03
23	-11.54	-7.98	-6.26	-4.32	-0.99	4.23	9.50	12.97	14.34	16.56	20.12
24	-11.64	-7.82	-5.96	-3.34	-0.29	5.40	11.03	14.74	16.76	18.62	22.44
25	-12.43	-8.19	-6.14	-2.91	0.14	6.42	12.71	16.77	19.00	21.05	25.24
26	-12.32	-8.30	-6.12	-3.74	0.50	7.29	13.39	18.31	20.69	22.87	27.39
27	-13.16	-8.36	-6.04	-3.51	1.09	8.21	15.34	19.92	22.46	24.78	29.58
28	-14.25	-8.44	-6.37	-3.57	1.51	9.39	17.27	22.36	25.16	27.73	33.04
29	-15.05	-9.32	-6.55	-3.53	1.96	10.46	18.96	24.45	27.46	30.24	35.97
30	-13.51	-7.57	-4.70	-1.57	4.11	12.91	21.72	27.40	30.52	33.40	39.33
31	-13.62	-7.25	-4.17	-0.81	5.29	14.74	24.20	30.30	33.66	36.74	43.11
32	-13.23	-6.62	-3.42	0.06	6.39	16.20	26.01	32.34	35.82	39.02	45.63
33	-17.54	-9.65	-5.83	-1.67	5.88	17.59	29.30	36.85	41.01	44.83	52.72
34	-18.18	-9.95	-5.96	-1.62	6.25	18.47	30.68	38.56	42.90	46.88	55.11
35	-20.97	-12.22	-7.98	-3.36	5.02	18.02	31.02	39.41	44.02	48.26	57.02
36	-22.64	-13.51	-9.08	-4.26	4.48	19.05	31.61	40.36	45.17	49.60	58.73
37	-25.18	-15.44	-10.72	-5.58	3.74	18.21	32.67	42.00	47.14	51.85	61.60
38	-28.25	-17.82	-12.77	-7.27	2.72	18.20	33.68	43.67	49.17	54.22	64.65
39	-27.78	-17.20	-12.08	-6.50	3.63	19.33	35.04	45.17	50.74	55.87	66.45
40	-29.28	-18.24	-12.83	-7.07	3.49	19.88	36.27	46.84	52.65	58.00	69.04
41	-29.11	-18.04	-12.69	-6.85	3.74	20.16	36.58	47.17	53.00	58.36	69.42
42	-30.38	-19.04	-13.55	-7.57	3.29	20.12	36.95	47.81	53.78	59.28	70.62
43	-29.98	-18.71	-13.25	-7.30	3.49	20.23	36.97	47.77	53.71	59.17	70.45
44	-29.96	-18.72	-13.29	-7.36	3.40	20.08	36.75	47.51	53.43	58.87	70.11
45	-29.70	-18.51	-13.09	-7.19	3.52	20.13	36.75	47.46	53.36	58.78	69.97
46	-29.94	-18.62	-13.13	-7.17	3.67	20.48	37.29	48.12	54.09	59.58	70.90
47	-30.72	-18.95	-13.25	-7.05	4.21	21.68	39.15	50.41	56.62	62.31	74.08
48	-31.12	-18.97	-13.08	-6.68	4.95	22.98	41.02	52.65	59.05	64.93	77.08
49	-31.80	-19.46	-13.44	-6.98	4.83	23.15	41.47	53.28	59.78	65.76	78.10
50	-33.07	-20.57	-14.52	-7.93	4.04	22.59	41.15	53.11	59.70	65.76	78.26
51	-35.28	-22.11	-15.73	-8.79	3.82	23.37	42.92	55.53	62.47	68.85	82.02
52	-37.04	-23.65	-17.16	-10.10	2.71	22.59	42.47	55.28	62.34	68.83	82.22
53	-40.05	-26.14	-19.41	-12.08	1.24	21.89	42.53	55.85	63.18	69.92	83.83
54	-39.40	-25.67	-19.02	-11.78	1.37	21.75	42.13	55.27	62.51	69.16	82.89
55	-43.06	-28.58	-21.57	-13.93	-0.07	21.43	42.93	56.79	64.42	71.44	85.92
56	-46.50	-30.86	-23.28	-15.03	-0.05	23.18	46.40	61.38	69.63	77.21	92.86
57	-46.93	-31.30	-23.78	-15.48	-0.52	22.69	45.90	60.87	69.11	76.68	92.32
58	-46.12	-31.13	-23.87	-15.97	-1.62	20.63	42.88	57.23	65.13	72.39	87.38
59	-52.19	-36.34	-28.66	-20.31	-5.14	18.39	41.92	57.09	65.44	73.12	88.97
60	-73.11	-52.43	-42.41	-31.51	-11.71	18.98	49.68	69.48	80.38	90.40	111.08
61	-50.15	-34.84	-27.42	-19.34	-4.68	18.06	40.79	55.46	63.53	70.95	86.27
62	-46.29	-32.05	-25.16	-17.65	-4.02	17.12	38.26	51.89	59.40	66.29	80.54
63	-42.56	-29.37	-22.98	-16.02	-3.39	16.19	35.78	48.41	55.36	61.76	74.95
64	-38.75	-26.62	-20.75	-14.36	-2.75	15.26	33.26	44.87	51.26	57.14	69.27
65	-35.11	-24.00	-18.63	-12.77	-2.14	14.34	30.82	41.45	47.30	52.68	63.78
66	-31.37	-21.32	-16.45	-11.15	-1.53	13.40	28.32	37.94	43.24	48.11	58.17
67	-27.68	-18.66	-14.30	-9.54	-0.91	12.47	25.85	34.48	39.24	43.60	52.62
68	-24.20	-16.17	-12.28	-8.05	-0.37	11.54	23.46	31.14	35.37	39.26	47.28
69	-20.71	-13.68	-10.27	-6.57	0.17	10.61	21.05	27.78	31.49	34.89	41.93
70	-17.39	-11.31	-8.37	-5.16	0.66	9.68	18.70	24.52	27.73	30.57	36.78

TABLE 3.1. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

JANUARY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.37	-9.07	-7.95	-6.73	-4.52	-1.09	2.34	4.55	5.78	6.88	9.19
1	-22.72	-18.11	-15.87	-13.44	-9.02	-2.17	4.68	9.10	11.53	13.77	18.34
2	-25.91	-21.39	-19.20	-16.81	-12.48	-5.77	4.95	9.28	11.66	13.85	18.38
3	-30.20	-25.42	-23.10	-20.56	-16.00	-8.90	-1.80	2.78	5.30	7.62	12.47
4	-34.57	-29.45	-26.96	-24.26	-19.36	-11.75	-4.14	1.77	3.47	5.95	11.09
5	-39.65	-34.06	-31.35	-29.39	-23.04	-14.73	-6.42	-1.06	1.89	4.60	10.20
6	-44.23	-38.27	-35.38	-32.23	-26.52	-17.67	-8.81	-3.10	0.64	2.93	8.97
7	-49.41	-42.93	-39.79	-36.36	-30.15	-20.52	-10.89	-4.68	-1.26	1.94	8.37
8	-54.78	-47.74	-44.33	-40.61	-33.87	-23.42	-12.97	-6.23	-2.51	0.90	7.94
9	-61.19	-53.34	-49.54	-45.40	-37.89	-26.24	-14.59	-7.08	-2.34	0.86	8.71
10	-66.50	-58.12	-54.07	-49.65	-41.64	-29.21	-16.78	-8.76	-4.35	-1.29	8.08
11	-72.29	-63.31	-58.96	-54.23	-45.63	-32.31	-18.99	-10.39	-5.66	-1.31	7.67
12	-72.86	-64.22	-60.03	-55.47	-47.19	-34.36	-21.52	-13.24	-8.68	-4.50	4.15
13	-69.79	-61.89	-58.07	-53.31	-46.35	-34.62	-22.90	-15.34	-11.18	-7.35	0.54
14	-64.44	-57.42	-54.02	-50.33	-43.61	-33.19	-22.79	-16.06	-12.30	-8.27	-1.95
15	-57.20	-50.99	-47.98	-44.70	-38.75	-29.52	-20.30	-14.35	-11.07	-8.06	-1.84
16	-49.50	-44.05	-41.41	-38.54	-33.32	-25.22	-17.13	-11.91	-9.03	-6.29	-0.94
17	-42.47	-37.55	-35.17	-32.58	-27.88	-20.59	-13.29	-9.59	-6.00	-3.62	1.29
18	-35.02	-30.59	-28.44	-26.11	-21.87	-15.29	-8.72	-4.44	-2.14	0.00	4.43
19	-29.39	-25.18	-23.14	-20.92	-16.90	-10.65	-4.41	-3.38	1.44	3.98	9.08
20	-23.94	-20.18	-18.36	-16.38	-12.78	-7.26	-1.63	1.97	3.95	5.77	9.53
21	-22.64	-18.73	-16.84	-14.78	-11.04	-5.24	0.56	4.31	6.37	9.26	12.17
22	-23.17	-18.88	-16.80	-14.53	-10.42	-4.05	2.32	6.44	8.70	10.78	15.07
23	-23.58	-18.87	-16.64	-14.30	-9.99	-3.29	3.41	7.72	10.10	12.29	16.87
24	-25.51	-20.51	-18.09	-15.46	-10.68	-3.27	4.15	8.93	11.56	13.98	18.97
25	-28.84	-22.66	-20.06	-17.23	-12.09	-4.11	3.86	9.00	11.84	14.44	19.81
26	-33.79	-27.38	-24.27	-20.89	-14.75	-5.23	4.28	10.42	13.80	16.91	23.32
27	-39.38	-30.90	-27.32	-23.42	-16.35	-5.37	5.61	12.69	16.58	20.17	27.56
28	-46.08	-36.63	-32.59	-28.13	-18.12	-6.26	6.61	13.62	17.47	21.02	28.34
29	-54.63	-44.94	-40.70	-35.26	-24.04	-8.29	7.45	15.67	20.20	24.36	32.94
30	-64.20	-54.88	-49.81	-43.69	-32.91	-10.81	7.32	16.67	21.79	26.48	36.18
31	-74.10	-65.31	-60.09	-54.40	-42.08	-13.07	7.94	18.26	23.94	29.17	39.95
32	-84.33	-76.63	-71.96	-65.79	-52.59	-15.22	8.14	19.35	25.51	31.18	42.88
33	-94.87	-88.95	-84.69	-78.81	-65.51	-17.33	8.85	21.22	28.03	34.29	47.21
34	-105.13	-99.18	-94.43	-88.07	-74.72	-19.01	9.70	23.05	30.40	37.16	51.11
35	-115.37	-109.04	-103.53	-96.58	-82.13	-20.74	11.66	26.10	34.05	41.36	56.45
36	-125.35	-119.63	-113.51	-105.93	-90.27	-22.23	11.82	26.68	34.86	42.38	57.90
37	-135.06	-129.04	-122.57	-114.44	-97.68	-23.79	11.10	25.86	33.98	41.45	56.87
38	-144.49	-138.29	-131.53	-122.90	-106.00	-25.00	12.07	27.24	35.60	43.28	59.13
39	-153.36	-147.06	-140.06	-131.36	-114.16	-26.16	12.03	27.25	35.63	43.33	59.23
40	-161.49	-155.06	-147.80	-138.50	-122.52	-27.54	10.44	25.27	33.43	40.93	56.41
41	-169.34	-162.94	-155.59	-146.16	-130.85	-28.10	11.65	26.96	35.39	43.14	59.14
42	-176.93	-170.89	-163.37	-153.19	-138.32	-28.26	10.80	25.67	33.86	41.38	56.91
43	-184.38	-178.62	-170.88	-160.68	-145.79	-28.70	11.40	26.29	34.49	42.02	57.58
44	-191.69	-186.06	-178.06	-168.06	-153.87	-28.87	10.14	24.34	32.15	39.33	54.16
45	-198.22	-193.50	-185.37	-175.61	-161.52	-28.67	9.17	23.27	31.02	38.15	52.87
46	-204.80	-200.03	-191.78	-181.89	-169.55	-28.33	8.89	23.22	31.12	38.37	53.34
47	-211.25	-206.83	-198.66	-188.63	-177.06	-28.06	9.12	23.69	31.71	39.08	54.30
48	-217.62	-213.85	-205.85	-195.70	-184.92	-27.79	8.04	22.18	29.96	37.11	51.87
49	-223.87	-219.94	-211.94	-201.79	-192.80	-27.50	8.86	18.20	25.54	32.29	46.22
50	-229.03	-225.35	-217.35	-207.20	-198.44	-27.14	3.15	16.24	23.45	30.07	43.74
51	-234.03	-230.35	-222.35	-212.20	-203.59	-26.78	2.32	15.51	22.77	29.45	43.23
52	-238.73	-235.05	-227.05	-216.90	-208.64	-26.42	0.45	14.02	21.49	28.36	42.54
53	-243.13	-239.46	-231.46	-221.31	-213.73	-26.06	-2.49	10.89	18.25	25.01	38.98
54	-247.28	-243.78	-235.78	-225.63	-217.78	-25.69	-4.81	8.56	15.92	22.69	36.66
55	-251.06	-247.60	-239.60	-229.45	-221.97	-25.32	-5.18	8.66	16.29	23.29	37.76
56	-254.78	-251.22	-243.22	-233.07	-225.63	-24.95	-5.40	3.55	10.68	17.24	30.77
57	-258.47	-254.91	-246.91	-236.76	-229.32	-24.58	-12.30	1.43	8.99	15.94	30.26
58	-262.39	-258.83	-250.83	-240.68	-233.07	-24.21	-13.05	1.36	9.29	16.58	31.63
59	-266.50	-262.94	-254.94	-244.79	-236.81	-23.84	-15.11	-1.03	6.73	13.86	28.58
60	-270.78	-267.22	-259.22	-249.07	-240.63	-23.47	-14.92	-0.02	8.19	15.73	31.30
61	-275.13	-271.57	-263.57	-253.92	-245.57	-23.10	-13.05	2.03	10.34	17.97	33.73
62	-279.64	-276.08	-268.08	-258.43	-249.98	-22.73	-11.74	3.16	11.37	18.91	34.49
63	-284.31	-280.75	-272.75	-263.10	-254.65	-22.36	-10.48	4.22	12.32	19.76	35.12
64	-289.04	-285.48	-277.48	-267.83	-259.38	-21.99	-9.13	5.42	13.43	20.80	36.00
65	-293.84	-290.28	-282.28	-272.63	-264.18	-21.62	-7.75	6.68	14.62	21.92	36.99
66	-298.71	-295.15	-287.15	-277.50	-269.03	-21.25	-6.36	7.95	15.82	23.06	38.01
67	-303.64	-300.08	-292.08	-282.43	-273.88	-20.88	-4.93	9.28	17.10	24.29	39.13
68	-308.64	-305.08	-297.08	-287.43	-278.88	-20.51	-3.57	10.49	18.24	25.35	40.04
69	-313.64	-310.08	-302.08	-292.43	-283.88	-20.14	-2.10	11.89	19.59	26.67	41.28
70	-318.64	-315.08	-307.08	-297.43	-288.88	-19.77	-0.62	13.31	20.98	28.03	42.58

TABLE 3.2. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS

30 DEGREE FLIGHT AZIMUTH

FEBRUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-12.24	-9.59	-8.31	-6.91	-4.37	-4.43	3.50	6.04	7.44	8.72	11.38
1	-23.69	-18.82	-16.48	-13.89	-9.22	-1.99	5.25	9.92	12.49	14.85	19.72
2	-28.83	-23.68	-21.17	-13.49	-13.55	-5.91	1.74	6.66	9.38	11.37	17.02
3	-33.44	-27.96	-25.30	-22.41	-17.16	-9.07	-8.89	4.31	7.21	8.90	15.38
4	-38.59	-32.49	-29.54	-26.33	-20.49	-11.45	-2.40	3.44	6.65	9.60	15.70
5	-43.90	-37.24	-34.07	-30.51	-24.14	-14.26	-4.38	1.99	5.44	8.72	15.37
6	-48.16	-41.23	-37.87	-34.22	-27.59	-17.31	-7.07	-3.39	3.26	6.61	13.54
7	-53.61	-46.11	-42.49	-38.53	-31.36	-20.24	-9.11	-1.94	2.01	5.64	13.14
8	-59.39	-51.74	-47.75	-43.41	-35.52	-23.29	-11.05	-3.16	1.19	5.18	13.42
9	-66.81	-57.76	-53.38	-48.61	-39.97	-26.52	-13.09	-4.43	0.34	4.75	13.77
10	-72.09	-62.54	-57.92	-52.88	-43.74	-29.57	-14.39	-6.25	-1.22	3.40	12.95
11	-76.77	-66.88	-62.08	-56.87	-47.40	-32.71	-16.02	-8.55	-3.23	1.46	11.36
12	-77.98	-68.32	-63.64	-57.56	-47.79	-34.97	-17.39	-10.61	-5.79	-1.62	9.24
13	-73.12	-64.59	-60.47	-55.96	-47.79	-35.73	-18.67	-12.43	-7.00	-4.45	2.87
14	-69.90	-61.45	-58.44	-53.31	-43.74	-35.73	-19.67	-14.58	-8.85	-5.56	1.24
15	-69.28	-62.49	-59.20	-54.62	-43.74	-35.73	-20.02	-16.04	-10.04	-6.31	2.27
16	-62.25	-56.13	-53.18	-48.93	-38.07	-24.99	-24.99	-18.08	-12.17	-8.88	4.22
17	-44.94	-39.42	-36.75	-33.84	-28.55	-20.36	-12.17	-5.52	-3.97	-1.30	6.16
18	-36.70	-31.89	-29.56	-27.02	-22.41	-15.27	-8.13	-3.52	-2.97	-1.30	9.54
19	-29.52	-25.49	-23.34	-21.01	-16.77	-10.19	-3.61	-3.34	2.97	5.11	12.61
20	-24.20	-20.07	-18.07	-15.89	-11.93	-7.48	-3.44	4.30	6.48	8.44	13.99
21	-20.55	-17.02	-15.12	-13.05	-9.30	-5.48	-3.44	6.10	8.17	10.07	16.02
22	-20.73	-16.61	-14.61	-12.43	-8.44	-5.36	-3.44	7.72	9.30	11.89	16.39
23	-19.52	-15.49	-13.53	-11.41	-7.55	-5.66	-4.42	8.28	10.41	12.36	17.00
24	-20.17	-15.99	-13.97	-11.77	-7.78	-5.66	-4.42	9.06	11.42	13.58	18.05
25	-21.74	-17.27	-15.11	-13.75	-8.48	-6.44	-4.74	9.72	12.32	14.71	19.64
26	-24.26	-19.33	-16.95	-14.35	-9.63	-7.31	-5.00	10.79	13.71	16.38	21.91
27	-27.31	-21.78	-19.11	-16.19	-10.96	-7.70	-5.50	10.79	13.71	16.38	21.91
28	-29.14	-23.85	-21.29	-18.50	-13.44	-9.58	-7.05	10.79	13.71	16.38	21.91
29	-31.98	-26.01	-23.35	-20.46	-15.20	-11.18	-9.03	10.79	13.71	16.38	21.91
30	-35.12	-29.26	-26.43	-23.34	-17.73	-13.18	-11.18	10.79	13.71	16.38	21.91
31	-38.03	-32.00	-29.08	-25.90	-20.13	-15.18	-13.18	10.79	13.71	16.38	21.91
32	-42.81	-36.09	-32.83	-29.28	-22.64	-17.85	-15.25	10.79	13.71	16.38	21.91
33	-48.22	-40.82	-37.23	-33.33	-26.24	-20.84	-18.32	10.79	13.71	16.38	21.91
34	-51.36	-43.62	-39.86	-35.80	-28.40	-23.33	-20.84	10.79	13.71	16.38	21.91
35	-51.37	-43.77	-40.08	-36.07	-28.79	-23.33	-20.84	10.79	13.71	16.38	21.91
36	-54.37	-46.29	-42.38	-38.12	-30.38	-25.84	-23.33	10.79	13.71	16.38	21.91
37	-58.06	-49.31	-45.08	-40.47	-32.10	-28.13	-25.84	10.79	13.71	16.38	21.91
38	-61.82	-52.50	-48.99	-43.08	-34.16	-30.33	-28.13	10.79	13.71	16.38	21.91
39	-64.33	-55.11	-50.35	-45.18	-35.77	-32.10	-30.33	10.79	13.71	16.38	21.91
40	-67.55	-57.25	-52.27	-46.84	-36.99	-33.11	-32.10	10.79	13.71	16.38	21.91
41	-70.60	-59.91	-54.64	-48.90	-38.48	-35.11	-33.11	10.79	13.71	16.38	21.91
42	-70.31	-59.69	-54.55	-48.96	-38.80	-35.11	-33.11	10.79	13.71	16.38	21.91
43	-69.37	-59.17	-54.23	-48.86	-39.10	-35.11	-33.11	10.79	13.71	16.38	21.91
44	-71.42	-60.96	-55.89	-50.38	-40.36	-36.99	-35.11	10.79	13.71	16.38	21.91
45	-73.89	-62.97	-57.68	-51.92	-41.46	-38.48	-36.99	10.79	13.71	16.38	21.91
46	-75.40	-64.32	-58.95	-53.11	-42.49	-39.10	-38.48	10.79	13.71	16.38	21.91
47	-75.41	-64.53	-59.27	-53.53	-43.12	-40.36	-39.10	10.79	13.71	16.38	21.91
48	-76.21	-65.49	-60.30	-54.65	-44.40	-41.46	-40.36	10.79	13.71	16.38	21.91
49	-78.47	-67.77	-62.58	-56.93	-46.68	-43.11	-41.46	10.79	13.71	16.38	21.91
50	-79.64	-68.82	-63.58	-57.88	-47.52	-44.40	-43.11	10.79	13.71	16.38	21.91
51	-80.52	-69.71	-64.48	-58.79	-48.45	-45.95	-44.40	10.79	13.71	16.38	21.91
52	-85.20	-73.82	-68.30	-62.30	-51.41	-48.45	-45.95	10.79	13.71	16.38	21.91
53	-87.44	-76.18	-70.73	-64.80	-54.02	-51.41	-48.45	10.79	13.71	16.38	21.91
54	-89.87	-77.76	-72.38	-66.53	-55.90	-53.41	-50.41	10.79	13.71	16.38	21.91
55	-88.24	-77.56	-72.39	-66.76	-55.54	-53.41	-50.41	10.79	13.71	16.38	21.91
56	-90.48	-79.69	-74.47	-68.78	-58.46	-56.43	-53.41	10.79	13.71	16.38	21.91
57	-92.31	-81.61	-76.43	-70.79	-60.55	-58.67	-55.41	10.79	13.71	16.38	21.91
58	-93.36	-82.39	-77.08	-71.30	-60.81	-58.67	-55.41	10.79	13.71	16.38	21.91
59	-109.22	-95.10	-88.26	-80.62	-67.34	-63.34	-60.34	10.79	13.71	16.38	21.91
60	-122.63	-105.83	-97.69	-88.83	-72.74	-67.80	-64.80	10.79	13.71	16.38	21.91
61	-113.12	-98.10	-90.82	-82.91	-68.53	-66.24	-63.24	10.79	13.71	16.38	21.91
62	-109.93	-95.28	-88.18	-80.46	-66.43	-64.67	-61.67	10.79	13.71	16.38	21.91
63	-107.05	-92.69	-85.74	-78.17	-64.43	-63.11	-60.11	10.79	13.71	16.38	21.91
64	-103.86	-89.87	-83.09	-75.71	-62.32	-61.54	-58.54	10.79	13.71	16.38	21.91
65	-100.74	-87.10	-80.49	-73.30	-60.24	-59.99	-56.99	10.79	13.71	16.38	21.91
66	-97.62	-84.33	-77.89	-70.88	-58.16	-58.43	-55.43	10.79	13.71	16.38	21.91
67	-94.43	-81.51	-75.24	-68.43	-56.05	-56.86	-53.86	10.79	13.71	16.38	21.91
68	-91.55	-78.92	-72.80	-66.15	-54.05	-53.30	-50.30	10.79	13.71	16.38	21.91
69	-88.38	-76.11	-70.16	-63.70	-51.95	-51.74	-48.74	10.79	13.71	16.38	21.91
70	-85.25	-73.34	-67.56	-61.28	-49.87	-49.18	-46.18	10.79	13.71	16.38	21.91

TABLE 3.3. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

MARCH

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.12	-8.64	-7.44	-6.13	-5.76	-4.08	3.60	5.98	7.28	8.49	10.98
1	-21.89	-17.41	-15.24	-12.88	-8.59	-1.94	4.71	9.00	11.37	13.54	18.02
2	-25.53	-21.05	-18.89	-16.53	-12.24	-5.60	1.04	5.33	7.69	9.85	14.33
3	-30.73	-25.76	-23.30	-20.74	-15.99	-8.02	-1.25	3.70	6.11	8.52	12.48
4	-36.62	-31.03	-28.33	-25.39	-20.04	-11.75	-3.46	1.88	4.32	7.53	13.11
5	-41.60	-35.65	-32.76	-29.62	-23.91	-15.07	-6.23	-1.52	2.72	5.51	11.46
6	-46.06	-39.81	-36.73	-33.43	-27.49	-18.20	-9.92	-2.93	1.37	3.40	9.00
7	-51.48	-44.71	-41.43	-37.86	-31.38	-21.33	-11.28	-4.80	-1.23	2.05	8.82
8	-56.95	-49.63	-46.04	-42.23	-35.22	-24.36	-13.49	-6.44	-2.03	1.24	3.24
9	-64.94	-56.59	-52.54	-48.14	-40.15	-27.75	-15.36	-7.27	-2.97	1.08	9.47
10	-73.21	-63.76	-59.19	-54.20	-45.15	-31.12	-17.09	-8.04	-3.05	1.52	10.97
11	-79.15	-69.10	-64.23	-58.93	-49.31	-34.39	-19.47	-9.85	-4.55	1.32	10.37
12	-79.65	-70.06	-65.41	-60.35	-51.16	-36.92	-22.67	-13.49	-8.43	-3.78	5.82
13	-74.90	-66.39	-62.27	-57.79	-49.64	-37.02	-24.39	-16.25	-11.76	-7.64	4.86
14	-68.40	-60.76	-57.06	-53.03	-45.72	-34.78	-23.03	-15.72	-11.69	-7.93	-3.35
15	-60.11	-53.37	-50.10	-46.55	-40.10	-30.09	-20.09	-13.63	-10.00	-6.82	-0.07
16	-52.42	-46.39	-43.47	-40.29	-34.52	-25.58	-16.67	-10.96	-7.69	-4.77	1.26
17	-44.74	-39.28	-36.64	-33.77	-28.54	-20.45	-12.35	-7.13	-4.26	-1.61	3.84
18	-36.67	-31.79	-29.43	-26.85	-22.18	-14.94	-7.69	-3.02	-1.45	1.71	6.79
19	-28.48	-24.18	-22.10	-19.83	-15.72	-9.34	-2.96	1.16	3.42	5.00	9.80
20	-23.12	-19.13	-17.20	-15.09	-11.27	-5.74	1.59	4.41	6.51	8.45	12.44
21	-19.46	-15.70	-13.88	-11.91	-8.31	-2.74	2.83	6.43	8.41	10.22	13.98
22	-18.41	-14.56	-12.69	-10.66	-6.98	-1.26	4.46	9.15	10.18	12.05	15.90
23	-16.99	-13.19	-11.37	-9.35	-5.71	-0.07	5.56	9.20	11.20	13.04	16.84
24	-17.45	-13.51	-11.60	-9.52	-5.74	1.11	5.96	9.74	11.51	13.72	17.67
25	-19.64	-15.31	-13.21	-10.92	-6.77	-1.34	6.10	10.25	12.53	14.63	18.97
26	-22.13	-17.42	-15.13	-12.65	-8.14	-1.14	5.85	10.36	12.85	15.13	19.84
27	-25.45	-20.07	-17.46	-14.63	-9.48	-1.50	6.48	11.63	14.46	17.07	22.44
28	-22.84	-18.38	-16.17	-13.80	-9.80	-2.82	3.85	8.15	10.52	12.70	17.19
29	-26.41	-21.48	-19.10	-16.80	-11.79	-4.44	2.83	7.54	10.14	12.82	17.45
30	-30.32	-25.36	-22.67	-19.74	-14.42	-6.16	2.09	7.41	10.34	13.03	18.59
31	-36.21	-29.89	-26.83	-23.50	-17.44	-8.06	1.33	7.38	10.71	13.78	20.10
32	-41.13	-34.08	-30.67	-26.96	-20.21	-9.76	1.70	7.45	11.16	14.57	21.62
33	-46.33	-38.36	-34.50	-30.29	-22.66	-10.82	1.01	8.65	12.85	16.71	24.69
34	-50.78	-42.95	-37.69	-33.05	-24.63	-11.56	1.50	9.93	14.56	18.83	27.63
35	-51.04	-42.23	-37.97	-33.32	-24.89	-11.82	1.26	9.69	14.33	18.60	27.41
36	-48.65	-40.28	-36.23	-31.82	-23.61	-11.39	1.03	9.04	13.45	17.50	25.87
37	-47.05	-39.10	-35.24	-31.05	-23.43	-11.62	1.19	7.81	12.01	15.96	23.82
38	-44.86	-36.84	-32.57	-28.81	-22.78	-12.78	-1.77	6.99	11.26	15.18	23.28
39	-42.86	-34.32	-30.33	-26.09	-21.85	-13.85	-1.61	6.28	10.63	14.62	22.85
40	-40.71	-32.63	-28.72	-24.46	-20.73	-14.74	-2.75	4.99	9.24	13.16	21.23
41	-39.21	-30.74	-26.64	-22.05	-19.48	-15.48	-2.91	5.20	9.67	13.77	22.25
42	-37.52	-28.08	-24.00	-20.47	-18.95	-16.35	-3.43	4.65	9.10	13.18	21.62
43	-35.73	-26.55	-22.43	-19.25	-17.88	-17.50	-4.13	3.70	8.02	11.98	20.17
44	-33.99	-24.66	-20.52	-17.23	-16.88	-18.54	-4.51	3.47	7.86	11.90	20.23
45	-32.79	-23.41	-19.36	-16.41	-15.62	-19.25	-5.07	2.94	7.36	11.41	19.79
46	-31.78	-22.70	-18.41	-15.30	-14.54	-20.95	-5.46	1.33	5.62	9.57	17.70
47	-30.89	-21.89	-17.39	-14.13	-13.27	-22.55	-5.77	1.29	4.51	8.39	16.39
48	-29.03	-20.95	-16.45	-13.24	-12.64	-24.07	-6.26	-1.72	2.43	6.25	14.12
49	-27.90	-19.18	-15.45	-12.38	-11.82	-25.57	-6.71	-3.71	1.36	4.09	11.81
50	-26.91	-18.08	-14.30	-11.37	-10.98	-27.07	-7.46	-4.97	-0.84	2.95	10.77
51	-26.16	-17.44	-13.72	-10.72	-10.00	-28.43	-8.06	-6.22	-3.17	1.55	8.23
52	-25.65	-16.94	-13.24	-10.23	-9.36	-29.72	-8.64	-7.08	-3.77	-2.96	4.20
53	-25.14	-16.42	-12.76	-9.74	-8.82	-30.94	-9.24	-7.86	-4.37	-4.81	2.28
54	-24.85	-16.05	-12.41	-9.41	-8.44	-32.14	-9.84	-8.64	-5.04	-5.31	1.97
55	-24.04	-15.82	-12.14	-9.14	-8.14	-33.34	-10.44	-9.44	-5.64	-5.84	1.66
56	-23.02	-15.44	-11.74	-8.74	-7.74	-34.54	-11.04	-10.04	-6.24	-6.44	1.35
57	-22.03	-15.00	-11.30	-8.30	-7.30	-35.74	-11.64	-10.64	-6.84	-7.04	1.04
58	-21.07	-14.56	-10.86	-7.86	-6.86	-36.94	-12.24	-11.24	-7.44	-7.64	0.73
59	-20.37	-14.18	-10.48	-7.48	-6.48	-38.14	-12.84	-11.84	-8.04	-8.24	0.42
60	-19.08	-13.74	-10.04	-7.04	-6.04	-39.34	-13.44	-12.44	-8.64	-8.84	0.11
61	-18.60	-13.36	-9.66	-6.66	-5.66	-40.54	-14.04	-13.04	-9.24	-9.44	0.00
62	-17.14	-12.92	-9.22	-6.22	-5.22	-41.74	-14.64	-13.64	-9.84	-10.04	0.00
63	-16.14	-12.48	-8.78	-5.78	-4.78	-42.94	-15.24	-14.24	-10.44	-10.64	0.00
64	-15.29	-12.03	-8.33	-5.33	-4.33	-44.14	-15.84	-14.84	-11.04	-11.24	0.00
65	-14.83	-11.59	-7.89	-4.89	-3.89	-45.34	-16.44	-15.44	-11.64	-11.84	0.00
66	-14.38	-11.14	-7.44	-4.44	-3.44	-46.54	-17.04	-16.04	-12.24	-12.44	0.00
67	-13.93	-10.69	-6.99	-3.99	-2.99	-47.74	-17.64	-16.64	-12.84	-13.04	0.00
68	-13.54	-10.24	-6.54	-3.54	-2.54	-48.94	-18.24	-17.24	-13.44	-13.64	0.00
69	-13.09	-9.79	-6.09	-3.09	-2.09	-50.14	-18.84	-17.84	-14.04	-14.24	0.00
70	-12.65	-9.34	-5.64	-2.64	-1.64	-51.34	-19.44	-18.44	-14.64	-14.84	0.00

TABLE 3.4. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS

30 DEGREE FLIGHT AZIMUTH

APRIL

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.49	-7.10	-5.94	-4.66	-2.79	1.16	4.71	6.99	8.25	9.41	11.80
1	-19.83	-15.42	-13.20	-10.95	-6.73	-1.17	6.38	10.61	12.94	15.08	19.49
2	-22.97	-18.46	-16.26	-13.91	-9.59	-2.90	3.79	8.10	10.48	12.66	17.17
3	-28.46	-23.29	-20.79	-16.07	-13.13	-5.47	2.19	7.14	9.85	12.36	17.52
4	-32.65	-27.09	-24.39	-21.46	-16.17	-7.87	3.39	5.72	8.65	11.35	16.91
5	-37.22	-31.16	-28.27	-25.02	-19.22	-10.22	-1.22	4.59	7.79	10.72	16.79
6	-42.50	-35.82	-32.62	-29.00	-22.66	-12.74	-2.82	3.58	7.11	10.34	17.03
7	-47.74	-40.43	-36.36	-33.14	-26.17	-15.41	-4.63	2.32	6.14	9.66	16.92
8	-53.57	-45.63	-41.70	-37.60	-30.00	-18.22	-6.43	1.17	5.35	9.19	17.13
9	-60.40	-51.43	-47.12	-42.49	-33.95	-20.74	-7.53	1.00	5.63	10.00	18.91
10	-65.74	-56.28	-51.70	-46.71	-37.65	-23.61	-9.57	-0.52	4.47	9.05	18.51
11	-72.75	-62.43	-57.43	-51.99	-42.11	-26.79	-11.47	-1.59	3.35	8.85	19.17
12	-76.92	-66.34	-61.22	-55.64	-46.51	-29.81	-14.10	-3.08	1.60	6.77	17.31
13	-75.65	-65.75	-60.36	-55.74	-46.20	-31.57	-16.87	-7.40	-2.13	2.61	12.51
14	-67.75	-59.22	-55.09	-50.60	-42.43	-29.77	-17.11	-8.44	-4.44	-3.31	8.22
15	-57.87	-50.71	-47.24	-43.46	-36.40	-25.97	-15.34	-8.48	-4.70	-1.23	5.97
16	-49.68	-43.01	-39.96	-36.68	-30.66	-21.39	-12.09	-6.09	-2.79	0.24	6.50
17	-40.73	-35.22	-32.55	-29.54	-24.37	-16.19	-9.01	-2.73	0.17	2.84	8.35
18	-31.32	-26.49	-24.24	-21.81	-17.38	-10.51	-3.64	0.79	3.23	5.47	10.10
19	-23.72	-19.58	-17.53	-15.40	-11.44	-5.30	0.84	4.80	6.99	9.99	13.13
20	-18.20	-14.56	-12.74	-10.88	-7.79	-1.99	3.41	6.90	8.82	10.58	14.22
21	-14.05	-10.89	-9.35	-7.70	-4.68	0.01	4.69	7.71	9.38	10.91	14.06
22	-11.98	-8.95	-7.80	-5.31	-2.03	1.43	5.89	8.76	10.35	11.80	14.81
23	-11.69	-8.60	-7.11	-5.48	-2.52	2.06	6.64	9.60	11.22	12.72	15.81
24	-12.08	-8.90	-7.35	-5.68	-2.67	2.10	6.82	9.87	11.55	13.09	16.27
25	-13.31	-9.32	-8.24	-6.49	-3.24	1.80	5.84	10.09	11.88	13.52	16.92
26	-16.01	-12.07	-10.16	-8.09	-4.31	1.54	7.38	11.16	13.23	15.14	19.08
27	-18.48	-14.17	-12.04	-9.31	-5.68	0.73	7.13	11.26	13.54	15.62	19.94
28	-19.20	-14.64	-12.40	-10.04	-5.67	1.09	7.85	12.21	14.61	16.82	21.38
29	-21.39	-16.53	-14.17	-11.61	-6.95	0.27	7.49	12.14	14.71	17.06	21.93
30	-23.85	-18.69	-16.19	-13.47	-8.53	-0.86	6.80	11.74	14.46	16.96	22.12
31	-25.60	-20.28	-17.70	-14.89	-9.80	-1.90	6.01	11.10	13.91	16.49	21.81
32	-27.32	-21.83	-19.17	-16.27	-11.01	-2.86	5.29	10.55	13.44	16.10	21.60
33	-26.82	-21.36	-18.46	-16.14	-11.21	-3.55	4.11	9.04	11.76	14.26	19.42
34	-29.37	-23.83	-21.15	-18.24	-12.94	-4.73	3.44	8.77	11.69	14.37	19.90
35	-32.27	-26.16	-23.19	-19.97	-14.11	-5.03	4.05	9.91	13.13	16.09	22.21
36	-33.06	-26.80	-23.77	-20.47	-14.47	-5.18	4.12	10.11	13.41	16.45	22.71
37	-30.35	-24.72	-21.99	-19.02	-13.62	-5.25	3.11	8.51	11.48	14.21	19.85
38	-30.82	-25.13	-22.38	-19.38	-13.93	-5.48	2.97	8.42	11.42	14.18	19.87
39	-30.75	-24.83	-21.97	-18.85	-13.19	-4.41	4.37	10.04	13.15	16.02	21.93
40	-33.40	-27.02	-23.93	-20.57	-14.47	-5.01	4.46	10.56	13.92	17.01	23.39
41	-32.26	-26.11	-23.13	-19.88	-13.99	-4.86	4.27	10.16	13.41	16.39	22.54
42	-33.50	-26.96	-23.79	-20.35	-14.08	-4.38	5.33	11.59	15.04	18.21	24.75
43	-34.80	-27.83	-24.46	-20.79	-14.12	-3.79	6.55	13.22	16.89	20.26	27.23
44	-35.23	-28.11	-24.66	-20.91	-14.09	-3.51	7.06	13.88	17.63	21.08	28.20
45	-36.61	-29.14	-25.52	-21.58	-14.43	-3.34	7.75	14.91	18.84	22.46	29.93
46	-40.50	-32.05	-28.10	-23.81	-16.01	-3.91	8.18	15.98	20.27	24.22	32.37
47	-43.47	-34.88	-30.71	-26.18	-17.96	-5.20	7.56	15.79	20.32	24.48	33.08
48	-46.51	-35.94	-33.79	-27.27	-19.07	-6.35	6.37	14.57	19.08	23.23	31.60
49	-47.48	-38.41	-34.01	-29.23	-20.54	-7.07	6.41	15.09	19.88	24.28	33.35
50	-48.86	-39.43	-34.87	-29.90	-20.88	-6.89	7.10	16.12	21.09	25.65	35.08
51	-50.33	-40.57	-35.65	-30.71	-21.37	-6.89	7.60	16.93	22.08	26.80	36.56
52	-51.02	-41.13	-36.38	-31.12	-21.65	-6.96	7.73	17.20	22.41	27.20	37.10
53	-50.38	-40.79	-36.14	-31.09	-21.91	-7.67	6.56	15.74	20.79	25.44	35.03
54	-49.97	-40.72	-36.27	-31.36	-22.50	-8.77	4.97	13.82	18.70	23.18	32.44
55	-53.02	-43.40	-38.74	-33.67	-24.46	-10.19	4.09	13.30	18.37	23.03	32.65
56	-52.70	-43.39	-38.88	-33.98	-25.07	-11.26	2.56	11.46	16.37	20.88	30.18
57	-51.98	-43.03	-38.69	-33.97	-25.39	-12.09	1.20	9.78	14.50	18.84	27.80
58	-56.35	-46.71	-42.04	-36.96	-27.73	-13.42	0.90	10.13	15.21	19.88	29.52
59	-50.79	-41.86	-37.53	-32.83	-24.28	-11.02	2.23	10.78	15.49	19.81	28.74
60	-56.29	-46.29	-41.44	-36.17	-26.59	-11.74	3.11	12.69	17.96	22.81	32.82
61	-57.75	-47.34	-42.31	-36.82	-26.87	-11.43	4.01	13.97	19.45	24.49	34.89
62	-57.06	-46.74	-41.75	-36.31	-26.43	-11.12	4.19	14.07	19.50	24.50	34.81
63	-56.15	-45.97	-41.04	-35.67	-25.92	-10.80	4.31	14.06	19.43	24.36	34.55
64	-55.47	-45.37	-40.48	-35.16	-25.49	-10.50	4.49	14.16	19.49	24.38	34.48
65	-55.07	-44.99	-40.11	-34.79	-25.15	-10.18	4.78	14.43	19.74	24.63	34.71
66	-54.17	-44.22	-39.41	-34.16	-24.64	-9.87	4.90	14.43	19.67	24.49	34.44
67	-53.50	-43.63	-38.85	-33.65	-24.21	-9.56	5.08	14.53	19.73	24.51	34.37
68	-52.85	-43.06	-38.31	-33.15	-23.78	-9.24	5.29	14.67	19.83	24.57	34.36
69	-52.18	-42.47	-37.78	-32.64	-23.35	-8.94	5.48	14.77	19.89	24.59	34.30
70	-51.53	-41.90	-37.23	-32.15	-22.93	-8.62	5.68	14.91	19.99	24.65	34.29

TABLE 3.5. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

MAY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.10	-5.12	-4.16	-3.12	-1.23	1.71	4.54	6.54	7.58	8.54	10.52
1	-13.13	-9.94	-8.40	-6.72	-3.67	1.06	5.80	9.85	10.53	12.07	15.26
2	-14.82	-11.64	-10.09	-8.41	-5.36	-0.63	4.09	7.14	8.52	10.37	13.55
3	-16.75	-13.35	-11.71	-10.02	-6.67	-1.02	3.42	6.67	8.45	10.11	13.50
4	-19.33	-15.58	-13.77	-11.80	-8.21	-2.65	2.91	6.40	8.47	10.26	14.52
5	-21.22	-17.81	-15.87	-13.76	-9.92	-3.03	1.97	5.81	7.92	9.96	13.37
6	-24.90	-20.50	-18.37	-16.06	-11.65	-5.32	1.21	5.42	7.77	9.86	14.26
7	-28.98	-23.98	-21.56	-18.92	-14.13	-6.71	0.72	5.51	8.27	10.57	15.57
8	-31.52	-26.23	-23.65	-20.87	-15.81	-7.95	-0.05	4.95	7.77	10.32	15.62
9	-35.55	-29.69	-26.35	-23.75	-18.14	-9.43	-0.73	4.89	7.99	10.82	16.69
10	-40.57	-33.95	-30.74	-27.25	-20.92	-11.09	-1.27	5.07	8.50	11.78	18.30
11	-45.43	-38.20	-34.70	-30.63	-23.77	-13.23	-2.50	4.42	8.23	11.73	19.95
12	-50.47	-42.46	-38.67	-34.55	-27.06	-15.46	-3.85	3.67	7.75	11.54	19.36
13	-53.04	-45.14	-41.31	-37.14	-29.58	-17.85	-5.12	1.45	5.62	9.44	17.35
14	-57.99	-49.22	-45.37	-41.37	-34.37	-27.99	-7.79	-1.74	2.26	5.54	12.31
15	-59.43	-50.06	-46.40	-42.03	-35.43	-28.43	-7.55	-2.41	0.43	3.03	9.40
16	-62.50	-52.90	-48.60	-43.25	-36.95	-29.00	-8.21	-0.81	1.01	3.84	8.42
17	-65.03	-55.20	-50.34	-45.33	-37.66	-29.93	-8.29	1.37	7.33	5.25	9.03
18	-68.87	-58.52	-53.90	-48.14	-40.94	-32.27	-9.00	4.20	5.06	7.50	10.92
19	-73.43	-62.54	-58.15	-51.52	-44.86	-35.57	-9.71	6.47	8.00	9.39	12.23
20	-78.09	-67.46	-63.10	-56.40	-48.80	-38.29	-10.61	8.02	9.41	10.68	13.30
21	-82.20	-71.59	-67.24	-60.49	-52.94	-41.61	-11.50	9.94	11.22	12.48	15.10
22	-86.60	-76.08	-71.84	-65.12	-57.48	-45.53	-12.41	11.18	12.61	13.93	16.65
23	-91.20	-80.99	-76.80	-69.80	-62.43	-49.35	-13.35	11.93	13.35	14.67	17.37
24	-96.07	-86.10	-81.91	-74.72	-67.43	-53.79	-14.29	12.78	14.29	15.67	18.54
25	-101.20	-91.48	-87.29	-80.20	-72.43	-58.35	-15.21	13.51	15.17	16.58	19.92
26	-106.50	-97.01	-92.81	-85.11	-77.43	-63.90	-16.12	14.12	15.82	17.52	20.68
27	-112.00	-102.70	-98.50	-90.00	-82.43	-69.43	-17.00	14.61	16.55	18.33	22.31
28	-117.60	-108.59	-104.38	-95.89	-87.43	-75.00	-17.85	15.00	17.00	19.00	23.14
29	-123.40	-114.58	-110.37	-101.88	-92.43	-80.57	-18.68	15.37	17.37	19.68	24.63
30	-129.40	-120.67	-116.46	-107.88	-97.43	-86.14	-19.50	15.68	17.68	20.28	26.62
31	-135.60	-126.86	-122.65	-113.88	-102.43	-91.71	-20.35	15.93	17.93	20.88	28.27
32	-142.00	-133.25	-129.04	-120.00	-107.43	-97.28	-21.18	16.18	18.18	21.48	29.92
33	-148.60	-139.84	-135.63	-126.00	-112.43	-102.85	-22.00	16.43	18.43	22.08	31.57
34	-155.40	-146.63	-142.42	-132.00	-117.43	-108.42	-22.81	16.68	18.68	22.68	33.22
35	-162.40	-153.62	-149.41	-138.00	-122.43	-113.99	-23.61	16.93	18.93	23.28	34.87
36	-169.60	-160.81	-156.60	-144.00	-127.43	-119.56	-24.41	17.18	19.18	23.88	36.52
37	-177.00	-168.20	-164.00	-150.00	-132.43	-125.13	-25.21	17.43	19.43	24.48	38.17
38	-184.60	-175.79	-171.58	-156.00	-137.43	-130.70	-26.00	17.68	19.68	25.08	39.82
39	-192.40	-183.58	-179.37	-162.00	-142.43	-136.27	-26.79	17.93	19.93	25.68	41.47
40	-200.40	-191.57	-187.36	-168.00	-147.43	-141.84	-27.58	18.18	20.18	26.28	43.12
41	-208.60	-199.76	-195.55	-174.00	-152.43	-147.41	-28.37	18.43	20.43	26.88	44.77
42	-217.00	-208.15	-203.94	-180.00	-157.43	-152.98	-29.16	18.68	20.68	27.48	46.42
43	-225.60	-216.74	-212.53	-186.00	-162.43	-158.55	-29.95	18.93	20.93	28.08	48.07
44	-234.40	-225.53	-221.32	-192.00	-167.43	-164.12	-30.74	19.18	21.18	28.68	49.72
45	-243.40	-234.52	-230.31	-198.00	-172.43	-169.69	-31.53	19.43	21.43	29.28	51.37
46	-252.60	-243.71	-239.50	-204.00	-177.43	-175.26	-32.32	19.68	21.68	29.88	53.02
47	-262.00	-253.10	-248.89	-210.00	-182.43	-180.83	-33.11	19.93	21.93	30.48	54.67
48	-271.60	-262.69	-258.48	-216.00	-187.43	-186.40	-33.90	20.18	22.18	31.08	56.32
49	-281.40	-272.48	-268.27	-222.00	-192.43	-191.97	-34.69	20.43	22.43	31.68	57.97
50	-291.40	-282.47	-278.26	-228.00	-197.43	-197.54	-35.48	20.68	22.68	32.28	59.62
51	-301.60	-292.66	-288.45	-234.00	-202.43	-203.11	-36.27	20.93	22.93	32.88	61.27
52	-312.00	-303.05	-298.84	-240.00	-207.43	-208.68	-37.06	21.18	23.18	33.48	62.92
53	-322.60	-313.64	-309.43	-246.00	-212.43	-214.25	-37.85	21.43	23.43	34.08	64.57
54	-333.40	-324.43	-320.32	-252.00	-217.43	-219.82	-38.64	21.68	23.68	34.68	66.22
55	-344.40	-335.42	-331.31	-258.00	-222.43	-225.39	-39.43	21.93	23.93	35.28	67.87
56	-355.60	-346.61	-342.50	-264.00	-227.43	-230.96	-40.22	22.18	24.18	35.88	69.52
57	-367.00	-358.00	-353.89	-270.00	-232.43	-236.53	-41.01	22.43	24.43	36.48	71.17
58	-378.60	-369.59	-365.38	-276.00	-237.43	-242.10	-41.80	22.68	24.68	37.08	72.82
59	-390.40	-381.38	-377.17	-282.00	-242.43	-247.67	-42.59	22.93	24.93	37.68	74.47
60	-402.40	-393.37	-389.16	-288.00	-247.43	-253.24	-43.38	23.18	25.18	38.28	76.12
61	-414.60	-405.56	-401.35	-294.00	-252.43	-258.81	-44.17	23.43	25.43	38.88	77.77
62	-427.00	-417.95	-413.74	-300.00	-257.43	-264.38	-44.96	23.68	25.68	39.48	79.42
63	-439.60	-430.54	-426.33	-306.00	-262.43	-269.95	-45.75	23.93	25.93	40.08	81.07
64	-452.40	-443.33	-439.12	-312.00	-267.43	-275.52	-46.54	24.18	26.18	40.68	82.72
65	-465.40	-456.32	-452.11	-318.00	-272.43	-281.09	-47.33	24.43	26.43	41.28	84.37
66	-478.60	-469.51	-465.30	-324.00	-277.43	-286.66	-48.12	24.68	26.68	41.88	86.02
67	-492.00	-482.90	-478.69	-330.00	-282.43	-292.23	-48.91	24.93	26.93	42.48	87.67
68	-505.60	-496.49	-492.28	-336.00	-287.43	-297.80	-49.70	25.18	27.18	43.08	89.32
69	-519.40	-510.28	-506.07	-342.00	-292.43	-303.37	-50.49	25.43	27.43	43.68	90.97
70	-533.40	-524.27	-519.96	-348.00	-297.43	-308.94	-51.28	25.68	27.68	44.28	92.62

TABLE 3.6. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS

30 DEGREE FLIGHT AZIMUTH

JUNE

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-6.51	-4.73	-2.87	-1.00	-1.21	1.46	4.10	5.81	6.75	7.62	9.41
1	-12.06	-9.17	-7.20	-5.23	-3.24	4.23	7.73	9.24	10.63	12.51	13.51
2	-12.44	-10.56	-8.18	-6.04	-4.00	3.67	6.42	7.94	9.24	10.22	12.22
3	-14.26	-11.33	-9.37	-7.07	-4.57	3.12	5.23	7.47	8.39	11.82	11.82
4	-15.26	-12.21	-10.77	-8.10	-5.11	2.84	5.75	7.37	8.95	11.90	11.90
5	-16.37	-13.16	-11.60	-9.01	-5.23	2.70	5.77	7.47	9.02	12.23	12.23
6	-17.65	-14.25	-12.61	-10.80	-5.76	2.52	5.77	7.50	9.21	12.61	12.61
7	-19.34	-15.03	-14.16	-12.23	-6.03	2.40	5.03	8.07	9.89	13.65	13.65
8	-20.02	-17.80	-15.84	-13.00	-6.60	2.69	6.66	8.67	10.89	15.65	15.65
9	-25.51	-20.21	-18.42	-15.24	-11.34	4.21	7.37	10.76	12.37	17.22	17.22
10	-29.75	-24.15	-21.44	-17.40	-13.17	4.62	3.49	11.79	14.50	20.10	20.10
11	-33.19	-27.55	-24.47	-21.10	-15.00	4.60	3.76	9.33	13.17	16.24	22.52
12	-38.88	-31.74	-28.20	-24.51	-17.00	4.67	3.87	10.37	14.10	17.59	24.74
13	-41.39	-34.45	-30.90	-26.92	-18.68	4.41	2.73	10.01	13.33	17.64	25.12
14	-39.76	-32.37	-28.30	-25.31	-17.61	4.24	2.14	8.83	12.01	15.20	22.82
15	-37.70	-30.36	-26.40	-23.90	-17.20	4.51	2.24	7.99	11.00	13.35	19.75
16	-22.63	-19.71	-16.70	-14.94	-10.70	4.32	3.00	7.17	10.45	11.54	14.86
17	-14.79	-11.53	-9.07	-7.20	-5.11	4.27	4.57	7.69	9.41	10.29	14.25
18	-9.06	-6.41	-4.14	-3.74	-1.00	2.70	6.62	9.15	10.54	11.82	14.46
19	-4.39	-2.62	-1.57	-1.33	1.24	3.56	10.77	11.30	13.02	15.20	15.20
20	-3.22	-1.92	-1.00	1.41	2.60	7.01	10.42	17.62	13.83	14.94	17.24
21	-2.71	-1.21	1.00	3.22	4.71	7.42	12.12	14.51	15.83	17.04	19.54
22	-1.46	1.04	3.25	5.00	6.35	6.60	13.37	15.76	17.08	18.26	20.78
23	-0.59	1.14	3.10	4.40	6.31	10.65	14.41	16.83	18.16	19.30	21.91
24	-0.30	2.30	3.66	4.92	7.42	11.23	15.14	17.63	19.01	20.27	22.87
25	-0.67	2.13	3.43	4.90	7.04	11.73	15.35	18.62	20.10	21.45	24.25
26	-1.26	1.73	3.10	4.75	7.61	10.65	16.44	19.35	20.33	22.36	25.37
27	-2.14	1.09	3.00	4.30	7.43	10.21	16.93	20.03	21.74	23.34	26.50
28	-3.12	.52	2.29	4.21	7.70	13.11	18.52	22.01	23.93	25.70	29.34
29	-2.37	.64	2.39	4.29	7.74	13.10	18.45	21.90	23.80	25.55	29.16
30	-2.35	1.21	2.94	4.82	8.23	13.52	18.81	22.22	24.09	25.82	29.38
31	-2.58	1.14	2.94	4.90	8.46	13.98	19.50	23.06	25.03	26.83	30.55
32	-2.83	.92	2.73	4.71	8.29	13.86	19.42	23.01	24.98	26.80	30.55
33	-3.06	.77	2.63	4.65	8.31	14.00	19.68	23.35	25.37	27.22	31.05
34	-5.29	-0.80	1.38	3.74	8.04	14.71	21.37	25.67	28.04	30.21	34.70
35	-4.14	.20	2.31	4.60	8.76	15.21	21.66	25.32	28.11	30.21	34.56
36	-2.85	1.54	3.66	5.97	10.17	16.68	23.18	27.38	29.69	31.82	36.20
37	-6.60	3.64	5.70	7.94	12.00	18.31	24.61	28.67	30.91	32.97	37.21
38	-3.35	4.63	6.69	8.95	13.03	19.37	25.71	29.80	32.06	34.12	38.40
39	-2.16	6.34	8.37	10.57	14.57	20.78	26.99	30.99	33.20	35.22	39.40
40	4.57	8.44	10.32	12.36	16.07	21.81	27.56	31.26	33.30	35.18	39.05
41	4.65	8.84	10.87	13.09	17.10	23.33	29.56	33.58	35.79	37.92	42.02
42	5.45	9.84	11.97	14.28	18.48	25.00	31.51	35.71	38.02	40.15	44.54
43	7.36	11.84	14.00	16.36	20.65	27.29	33.94	38.22	40.58	42.75	47.22
44	9.83	14.32	16.50	18.86	23.16	29.83	36.49	40.79	43.16	45.33	49.82
45	10.23	14.95	17.23	19.71	24.22	31.22	38.21	42.73	45.21	47.49	52.20
46	10.92	15.83	18.21	20.80	25.49	32.78	40.07	44.77	47.35	49.73	54.64
47	11.65	16.79	19.27	21.93	26.90	34.53	42.16	47.08	49.79	52.28	57.42
48	13.93	18.99	21.44	24.10	28.95	36.45	43.96	48.80	51.47	53.92	58.98
49	12.72	18.41	21.16	24.16	29.60	38.04	46.49	51.93	54.93	57.68	63.37
50	11.90	17.65	20.48	23.46	28.95	37.48	46.00	51.50	54.53	57.31	63.06
51	9.58	15.96	19.05	22.42	28.53	38.00	47.47	53.58	56.95	60.04	66.42
52	8.49	15.20	18.45	21.99	28.41	38.36	48.32	54.74	58.28	61.53	68.24
53	5.83	13.26	16.86	20.77	27.89	38.91	49.94	57.05	60.97	64.57	72.00
54	9.29	16.00	19.25	22.78	29.20	39.16	49.12	55.54	59.08	62.32	69.03
55	9.41	16.16	19.43	22.98	29.44	39.46	49.48	55.94	59.50	62.77	69.51
56	11.99	18.24	21.27	24.56	30.55	39.82	49.10	55.08	58.38	61.40	67.65
57	1.95	9.98	13.88	18.11	25.81	37.74	49.67	57.37	61.61	65.50	73.54
58	-3.44	5.76	10.21	15.06	23.87	37.53	51.19	60.00	64.85	69.30	78.50
59	-8.56	1.65	6.60	11.99	21.76	36.92	52.09	61.86	67.25	72.19	82.41
60	-2.14	10.31	14.27	18.58	26.40	38.53	50.66	58.49	62.79	66.75	74.93
61	-2.10	6.66	10.90	15.51	23.90	36.90	49.89	58.28	62.89	67.14	75.89
62	-1.43	6.81	10.79	15.13	23.02	35.24	47.46	55.35	59.69	63.67	71.91
63	-0.68	7.02	10.75	14.80	22.17	33.60	45.03	52.39	56.45	60.18	67.88
64	-0.00	7.17	10.65	14.43	21.30	31.95	42.60	49.47	53.25	56.73	63.90
65	-0.68	7.34	10.56	14.07	20.43	30.31	40.19	46.55	50.06	53.28	59.94
66	1.36	7.49	10.46	13.69	19.56	28.66	37.76	43.63	46.86	49.83	55.96
67	2.04	7.63	10.36	13.32	18.69	27.01	35.34	40.71	43.66	46.38	51.99
68	2.78	7.85	10.31	12.98	17.84	25.37	32.90	37.76	40.43	42.89	47.96
69	3.45	8.00	10.20	12.60	16.96	23.72	30.47	34.83	37.23	39.43	43.98
70	4.13	8.16	10.11	12.23	16.09	22.07	28.06	31.91	34.04	35.99	40.02

TABLE 3.7. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

JULY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-5.91	-4.29	-3.50	-2.64	-1.09	1.33	3.74	5.36	6.15	6.24	8.57
1	-12.18	-9.31	-7.92	-6.41	-3.66	.61	4.87	7.62	9.13	10.52	13.39
2	-12.63	-9.85	-8.50	-7.03	-4.36	-.23	3.91	6.57	8.04	9.39	12.13
3	-12.33	-10.15	-8.80	-7.33	-4.57	-.54	3.59	6.20	7.72	9.07	11.85
4	-13.71	-10.78	-9.31	-7.81	-4.99	-.64	3.72	6.53	8.08	9.50	12.44
5	-14.26	-11.20	-9.72	-8.11	-5.19	-.66	3.83	6.80	8.41	9.79	12.94
6	-14.70	-11.51	-9.97	-8.29	-5.24	-.52	4.21	7.20	8.84	10.48	13.66
7	-14.43	-11.24	-9.69	-8.01	-4.95	-.21	4.53	7.59	9.27	10.92	14.02
8	-14.93	-11.59	-9.97	-8.22	-5.02	-.07	4.89	8.08	9.84	11.45	14.79
9	-15.37	-12.66	-10.87	-9.31	-5.37	.13	5.64	9.18	11.24	12.33	15.64
10	-18.00	-13.92	-11.94	-9.79	-5.89	.16	6.22	10.12	12.27	14.25	18.33
11	-20.51	-15.96	-13.60	-11.15	-6.70	.21	7.11	11.56	14.01	16.27	20.92
12	-23.32	-18.00	-15.42	-12.62	-7.53	.36	8.25	13.34	16.14	18.72	24.02
13	-25.38	-19.59	-16.77	-13.71	-8.15	.44	9.05	14.60	17.06	20.47	26.27
14	-21.99	-16.88	-14.40	-11.71	-6.82	.77	8.35	13.25	15.94	19.41	23.52
15	-14.85	-11.08	-9.25	-7.26	-3.65	1.95	7.55	11.16	13.15	14.77	18.75
16	-8.87	-6.18	-4.87	-3.45	-.87	2.13	7.13	9.71	11.12	12.44	15.13
17	-5.18	-3.01	-1.95	-.80	1.28	4.51	7.74	9.83	12.97	12.03	14.21
18	-2.07	-.11	.84	1.87	3.74	6.65	9.56	11.44	12.47	13.42	15.38
19	.87	2.53	3.44	4.42	6.11	8.74	11.36	13.05	13.93	14.94	16.61
20	1.25	3.42	4.48	5.60	7.60	10.86	14.06	16.12	17.07	18.30	20.45
21	1.77	4.24	5.43	6.72	9.08	12.73	16.39	19.74	20.50	21.23	23.69
22	3.47	5.85	7.01	8.27	10.55	14.08	17.62	19.90	21.16	22.31	24.70
23	4.91	7.19	8.29	9.49	11.67	15.05	18.41	20.61	21.31	22.31	25.19
24	5.64	7.96	9.08	10.31	12.53	15.97	19.41	21.64	22.86	23.98	26.30
25	5.60	8.05	9.24	10.53	12.98	16.51	20.15	22.49	23.78	24.97	27.42
26	4.25	7.11	8.48	10.00	12.73	16.97	21.21	23.95	25.45	26.84	29.40
27	3.61	6.55	8.14	9.75	12.68	17.21	21.74	24.67	26.29	27.70	30.51
28	4.97	7.72	9.08	10.51	13.15	17.24	21.33	23.97	25.42	26.76	29.52
29	6.18	9.00	10.36	11.85	14.55	18.73	22.92	25.62	27.10	28.47	31.29
30	6.41	9.40	10.80	12.42	15.28	19.71	24.15	27.00	28.58	30.03	33.01
31	6.54	9.59	11.07	12.67	15.59	20.11	24.64	27.55	29.16	30.64	33.68
32	6.92	10.05	11.56	13.21	16.21	20.86	25.60	28.50	30.15	31.67	34.80
33	5.56	9.05	10.74	12.58	15.92	21.10	26.29	29.63	31.47	33.16	36.65
34	5.56	9.18	10.94	12.85	16.32	21.71	27.09	30.56	32.47	34.23	37.86
35	5.99	9.89	11.78	13.84	17.57	23.37	29.16	32.89	34.95	36.84	40.74
36	6.49	12.03	13.75	15.62	19.02	24.28	29.55	32.94	34.81	36.53	40.08
37	10.05	13.43	15.07	16.86	20.10	25.13	30.16	33.41	35.19	36.83	40.22
38	4.07	9.18	11.54	14.19	19.01	26.47	33.94	38.75	41.41	43.84	48.87
39	10.77	14.63	16.50	18.54	22.23	27.97	33.70	37.39	39.43	41.30	45.16
40	13.06	16.76	18.55	20.49	24.03	29.51	34.99	38.53	40.47	42.26	45.95
41	11.76	15.98	18.02	20.24	24.28	30.54	36.80	40.84	43.06	45.10	49.32
42	13.41	17.61	19.64	21.85	25.87	32.09	38.32	42.33	44.54	46.57	50.77
43	14.75	19.17	21.31	23.64	27.87	34.43	40.99	45.21	47.54	49.68	54.10
44	16.49	21.09	23.31	25.74	30.14	36.97	43.79	48.20	50.62	52.85	57.45
45	15.98	21.23	23.78	26.55	31.58	39.37	47.17	52.20	54.97	57.51	62.77
46	18.70	23.85	26.34	29.05	33.98	41.63	49.27	54.20	56.92	59.41	64.56
47	18.49	24.05	26.75	29.68	35.01	43.26	51.52	56.84	59.78	62.47	68.03
48	19.54	25.07	27.74	30.65	35.94	44.13	52.33	57.62	60.53	63.20	68.73
49	22.55	27.67	30.15	32.86	37.76	45.37	52.98	57.89	60.59	63.07	68.20
50	23.03	28.19	30.69	33.41	38.36	46.02	53.68	58.63	61.35	63.85	69.01
51	20.57	26.31	29.09	32.11	37.61	46.12	54.64	60.13	63.15	65.93	71.67
52	16.46	23.08	26.28	29.77	36.11	45.93	55.76	62.10	65.59	68.79	75.41
53	13.18	20.44	23.96	27.79	34.75	45.53	56.32	63.28	67.10	70.62	77.89
54	11.36	18.98	22.66	26.68	33.96	45.26	56.56	63.85	67.86	71.55	79.16
55	6.73	15.34	19.52	24.06	32.30	45.08	57.87	66.11	70.65	74.82	83.43
56	3.34	12.43	16.84	21.63	30.33	43.83	57.32	66.03	70.82	75.22	84.31
57	3.21	12.46	16.94	21.82	30.67	44.40	58.13	66.98	71.86	76.34	85.59
58	-.03	9.54	14.17	19.22	28.38	42.58	56.78	65.94	70.99	75.62	85.19
59	-3.77	6.32	11.21	16.53	26.19	41.17	56.15	65.82	71.14	76.02	86.12
60	-11.22	.81	6.64	12.98	24.50	42.36	60.21	71.73	78.07	83.90	95.93
61	-5.16	5.11	10.08	15.49	25.32	40.56	55.80	65.63	71.04	76.01	86.28
62	-3.75	5.79	10.42	15.45	24.58	38.75	52.91	62.05	67.08	71.70	81.25
63	-2.57	6.31	10.60	15.28	23.78	36.95	50.12	58.62	63.30	67.59	76.47
64	-1.17	6.98	10.93	15.23	23.04	35.14	47.24	55.05	59.34	63.29	71.45
65	.17	7.62	11.23	15.16	22.28	33.34	44.40	51.53	55.45	59.06	66.51
66	1.56	8.29	11.55	15.09	21.54	31.53	41.52	47.96	51.51	54.77	61.50
67	2.94	8.96	11.87	15.04	20.80	29.73	38.66	44.42	47.59	50.51	56.52
68	3.99	9.37	11.97	14.80	19.94	27.92	35.89	41.04	43.87	46.47	51.84
69	5.41	10.05	12.32	14.77	19.22	26.12	33.02	37.47	39.93	42.18	46.83
70	6.71	10.66	12.58	14.66	18.44	24.31	30.18	33.96	36.04	37.96	41.91

TABLE 3.8. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS

30 DEGREE FLIGHT AZIMUTH

AUGUST

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-5.53	-4.11	-3.41	-2.60	-1.36	.32	2.94	4.21	5.08	5.75	7.18
1	-11.18	-4.49	-7.12	-5.73	-3.21	.78	4.77	7.34	8.75	10.05	12.74
2	-11.29	-8.66	-7.47	-6.09	-3.66	.11	3.88	6.31	7.65	8.88	11.42
3	-11.29	-9.27	-7.39	-6.50	-4.07	-.14	3.78	6.31	7.71	9.17	11.63
4	-12.28	-9.57	-8.25	-6.82	-4.23	-.20	3.83	6.43	7.86	9.17	11.89
5	-13.29	-10.18	-8.97	-7.43	-4.64	-.31	4.02	6.81	8.35	9.76	12.69
6	-12.27	-16.14	-8.63	-7.39	-4.59	-.25	4.09	6.89	8.43	9.85	12.77
7	-13.14	-10.21	-8.73	-7.25	-4.44	-.10	4.25	7.05	8.59	10.01	12.94
8	-13.52	-10.82	-9.32	-7.69	-4.72	-.12	4.43	7.45	8.69	10.59	13.69
9	-14.57	-11.33	-9.31	-7.08	-4.95	-.09	4.77	7.20	9.63	11.21	14.49
10	-16.54	-12.89	-12.17	-8.19	-5.70	-.27	5.15	8.64	10.57	12.34	15.99
11	-13.12	-14.49	-12.35	-10.52	-6.57	-.29	5.39	10.04	12.27	14.32	18.54
12	-21.77	-16.97	-14.67	-12.13	-7.54	-.43	6.09	11.29	13.80	16.12	20.92
13	-23.10	-18.10	-15.68	-13.04	-8.25	-.83	5.59	11.78	14.01	16.43	21.43
14	-19.76	-15.58	-13.46	-11.17	-6.96	-.46	6.04	10.25	12.54	14.60	19.44
15	-14.43	-11.00	-3.34	-7.53	-4.25	.33	5.92	7.20	11.00	12.65	16.09
16	-6.89	-6.36	-6.17	-3.81	-1.38	2.77	6.12	8.54	9.27	11.10	13.63
17	-5.78	-3.10	-2.04	-.89	1.13	4.43	7.66	3.74	10.39	11.35	14.13
18	-2.37	-.37	.60	1.65	3.50	6.53	9.49	11.46	12.45	13.42	15.42
19	-.36	2.25	3.15	4.10	5.97	9.77	11.57	13.33	14.39	15.29	17.18
20	1.52	3.65	4.68	5.80	7.04	11.01	14.17	16.21	17.34	18.37	20.50
21	2.74	4.37	6.07	7.22	9.30	12.66	15.97	18.11	19.28	20.36	22.59
22	4.01	6.25	7.39	8.53	10.69	14.01	17.34	19.49	20.68	21.76	24.01
23	5.23	7.41	8.45	9.61	11.69	14.92	18.16	20.24	21.39	22.44	24.62
24	5.52	7.81	8.92	10.12	12.31	15.71	19.10	21.29	22.49	23.60	25.89
25	5.84	7.99	9.03	10.33	12.73	16.17	20.02	22.37	23.67	24.86	27.31
26	6.65	7.32	8.62	10.02	12.58	16.55	20.52	23.08	24.48	25.78	28.45
27	4.59	7.39	9.73	10.21	12.88	17.02	21.17	23.84	25.31	26.66	29.45
28	7.13	9.51	10.66	11.92	14.19	17.73	21.26	23.54	24.79	25.94	28.32
29	7.08	9.66	10.91	12.27	14.75	18.58	22.42	24.89	26.25	27.50	30.09
30	6.95	9.73	11.09	12.55	15.21	19.34	23.46	26.12	27.59	28.94	31.72
31	7.37	10.25	11.68	13.16	15.92	20.19	24.46	27.21	28.73	30.12	33.00
32	5.21	8.59	10.23	12.01	15.24	20.26	25.27	28.51	30.29	31.92	35.30
33	5.87	9.08	10.64	12.33	15.40	20.16	24.93	28.00	29.69	31.25	34.46
34	4.53	8.11	9.84	11.73	15.15	20.46	25.77	29.19	31.08	32.81	36.34
35	2.57	6.65	8.63	10.79	14.70	20.76	26.83	30.74	32.89	34.87	38.96
36	1.20	5.75	7.96	10.36	14.72	21.47	28.23	32.59	34.99	37.19	41.74
37	2.72	7.10	9.22	11.53	15.72	22.22	28.72	32.91	35.22	37.34	41.72
38	-.13	5.10	7.63	10.39	15.39	23.15	30.91	35.92	38.67	41.20	46.43
39	1.75	6.58	8.93	11.47	16.10	23.28	30.46	35.08	37.63	39.97	44.81
40	-.29	5.11	7.72	10.56	15.72	23.72	31.72	36.88	39.72	42.33	47.72
41	1.44	6.63	9.15	11.89	16.86	24.58	32.29	37.27	40.00	42.52	47.72
42	.04	5.78	8.56	11.59	17.09	25.61	34.13	39.62	42.65	45.43	51.17
43	4.55	9.82	12.37	15.14	20.18	27.99	35.81	40.84	43.62	46.17	51.43
44	-.24	6.33	9.60	13.09	19.44	24.28	39.12	45.46	48.95	52.17	58.79
45	1.16	7.86	11.10	14.63	21.04	30.99	40.93	47.34	50.87	54.12	60.82
46	.13	7.26	10.71	14.46	21.28	31.85	42.42	49.24	53.00	56.45	63.57
47	-2.49	5.39	9.20	13.35	20.89	32.58	44.27	51.81	55.96	59.78	67.65
48	.28	7.49	10.93	14.78	21.67	32.37	43.06	49.96	53.76	57.25	64.45
49	.14	7.15	10.55	14.25	20.96	31.37	41.79	48.50	52.20	55.60	62.61
50	-.53	6.57	10.01	13.75	20.54	31.07	41.60	48.39	52.13	55.57	62.66
51	-2.20	5.37	9.04	13.03	20.28	31.51	42.75	50.00	53.99	57.66	65.23
52	-1.85	5.62	9.23	13.17	20.32	31.41	42.50	49.65	53.58	57.20	64.67
53	-5.15	2.63	6.40	10.51	17.96	29.52	41.07	48.52	52.63	56.40	64.18
54	-12.59	-3.44	-.99	5.81	14.57	28.16	41.74	50.50	55.33	59.76	68.91
55	-19.71	-9.32	-4.29	1.19	11.13	26.55	41.98	51.92	57.40	62.43	72.82
56	-24.71	-13.92	-8.69	-.70	7.32	23.34	39.35	49.68	55.37	60.60	71.39
57	-28.14	-16.95	-11.53	-.53	5.08	21.70	38.31	49.02	54.92	60.34	71.53
58	-37.27	-24.35	-18.08	-11.27	1.11	20.30	39.49	51.87	58.09	64.95	77.84
59	-44.28	-30.74	-24.18	-17.05	-4.08	16.02	36.12	49.08	56.22	62.78	76.32
60	-43.89	-29.94	-23.17	-15.82	-2.46	19.26	38.98	52.34	59.70	66.46	80.42
61	-37.27	-24.91	-18.93	-12.42	-.59	17.75	36.09	47.91	54.43	60.41	72.76
62	-33.63	-22.21	-16.67	-10.65	.28	17.24	34.20	45.13	51.15	56.69	69.11
63	-29.83	-19.37	-14.31	-8.80	1.21	16.72	32.24	42.24	47.75	52.81	63.27
64	-26.09	-16.59	-11.99	-6.98	2.11	15.21	30.31	39.40	44.41	49.01	58.51
65	-22.76	-14.13	-9.95	-5.39	2.87	15.69	28.51	36.78	41.33	45.51	54.15
66	-19.28	-11.55	-7.80	-3.72	3.69	15.17	26.65	34.06	38.14	41.88	49.62
67	-15.98	-9.10	-5.77	-2.14	4.45	14.66	24.87	31.46	35.09	38.42	45.30
68	-12.97	-6.88	-3.93	-.72	5.11	14.14	23.18	29.00	32.21	35.16	41.25
69	-10.45	-5.07	-2.45	.41	5.59	13.63	21.67	26.85	29.71	32.33	37.75
70	-8.40	-3.57	-1.23	1.32	5.94	13.11	20.28	24.91	27.46	29.80	34.63

TABLE 3.9. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

SEPTEMBER

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-6.53	-4.78	-3.57	-3.01	-1.33	1.27	3.87	5.55	6.47	7.37	9.07
1	-13.11	-9.72	-8.08	-6.29	-3.05	1.98	7.02	10.26	12.05	13.69	17.08
2	-14.79	-11.28	-9.59	-7.73	-4.37	0.83	6.04	9.40	11.25	12.95	16.45
3	-15.54	-12.03	-10.37	-8.48	-5.12	0.09	5.30	8.66	10.51	12.21	15.72
4	-15.66	-12.23	-10.57	-8.76	-5.48	-0.39	4.70	7.93	9.79	11.45	14.94
5	-16.27	-12.77	-11.08	-9.24	-5.89	-0.71	4.48	7.82	9.67	11.36	14.85
6	-16.99	-13.39	-11.65	-9.75	-6.31	-0.97	4.39	7.82	9.72	11.46	15.00
7	-17.85	-14.13	-12.32	-10.36	-6.80	-1.27	4.26	7.83	9.75	11.60	15.22
8	-19.04	-15.18	-13.31	-11.27	-7.57	-1.84	3.89	7.59	9.62	11.49	15.35
9	-20.97	-16.86	-14.87	-12.70	-8.76	-2.66	3.44	7.38	9.55	11.54	15.65
10	-24.40	-19.74	-17.43	-15.03	-10.56	-3.64	3.28	7.74	10.00	12.46	17.12
11	-28.10	-22.82	-20.26	-17.47	-12.42	-4.58	3.26	8.32	11.11	13.66	18.95
12	-31.64	-25.83	-23.02	-19.96	-14.41	-5.73	2.83	8.38	11.44	14.26	20.00
13	-33.96	-27.74	-24.72	-21.44	-15.48	-6.24	3.01	8.97	12.25	15.27	21.49
14	-32.11	-26.13	-23.24	-20.03	-14.36	-5.48	3.39	9.12	12.27	15.16	21.14
15	-25.87	-20.81	-18.27	-15.70	-10.86	-3.36	4.14	8.26	11.64	14.00	19.15
16	-17.78	-14.02	-12.20	-10.22	-6.62	-1.04	4.54	3.14	11.12	11.75	15.71
17	-13.23	-10.01	-8.45	-6.76	-3.68	1.10	5.87	8.95	10.64	12.20	15.42
18	-8.93	-6.25	-4.94	-3.53	-1.96	3.03	7.01	9.58	11.00	12.30	14.93
19	-5.61	-3.23	-2.08	-1.82	1.46	4.99	8.53	10.81	12.06	13.22	15.60
20	-3.70	-1.34	-0.20	1.05	3.31	6.81	10.31	12.57	12.82	14.96	17.32
21	-1.64	0.59	1.69	2.85	4.99	8.31	11.62	13.76	14.94	16.02	18.25
22	-0.53	1.69	2.76	3.94	6.06	9.36	12.05	14.72	15.35	17.07	19.25
23	-0.06	2.22	3.32	4.52	6.70	10.08	13.46	15.64	16.85	17.95	20.23
24	-0.03	2.32	3.46	4.69	6.94	10.42	13.91	16.16	17.30	18.53	20.89
25	-0.56	2.00	3.24	4.58	7.02	10.82	14.61	17.06	18.41	19.64	22.20
26	-1.45	1.33	2.67	4.13	6.79	10.92	15.04	17.70	19.10	20.51	23.29
27	-3.17	0.01	1.53	3.20	6.23	10.93	15.63	18.67	20.34	21.37	25.04
28	-1.21	1.44	2.79	4.21	6.79	10.79	14.79	17.37	18.80	20.10	22.80
29	-2.30	0.74	2.22	3.82	6.74	11.26	15.78	18.70	20.30	21.78	24.82
30	-4.23	-0.86	0.79	2.57	5.80	10.82	15.84	19.08	20.86	22.50	25.88
31	-4.16	-0.71	0.95	2.77	6.07	11.18	16.29	19.58	21.40	23.07	26.51
32	-5.00	-1.38	0.37	2.28	5.74	11.10	16.47	19.93	21.84	23.59	27.21
33	-5.78	-2.03	-0.23	1.73	5.28	10.80	16.31	19.87	21.83	23.63	27.34
34	-9.31	-5.04	-2.98	-0.73	3.35	9.69	16.02	20.10	22.35	24.42	28.68
35	-11.74	-7.13	-4.87	-2.41	2.06	8.99	15.92	20.38	22.84	25.11	29.77
36	-12.38	-7.64	-5.35	-2.85	1.68	8.71	15.74	20.28	22.77	25.07	29.80
37	-12.24	-7.51	-5.22	-2.73	1.80	8.83	15.85	20.38	22.87	25.16	29.90
38	-12.61	-7.71	-5.34	-2.76	1.93	9.21	16.48	21.17	23.75	26.12	31.02
39	-13.19	-8.11	-5.65	-2.97	1.90	9.45	17.00	21.86	24.54	27.01	32.09
40	-13.86	-8.70	-6.20	-3.47	1.47	9.14	16.81	21.75	24.48	26.94	32.15
41	-17.35	-11.53	-8.72	-5.65	-0.08	8.55	17.18	22.75	25.81	28.63	34.45
42	-18.73	-12.58	-9.60	-6.35	-0.46	8.68	17.81	23.71	26.95	29.93	36.09
43	-19.21	-12.51	-9.26	-5.72	0.70	10.66	20.62	27.04	30.59	33.83	40.54
44	-19.51	-12.69	-9.39	-5.80	0.73	10.85	20.97	27.50	31.09	34.39	41.21
45	-20.79	-13.95	-10.64	-7.03	-0.49	9.66	19.82	26.36	29.97	33.28	40.12
46	-18.74	-12.42	-9.36	-6.03	0.02	9.41	18.79	24.84	28.17	31.23	37.55
47	-19.26	-12.88	-9.78	-6.42	-0.31	9.17	18.65	24.76	28.12	31.22	37.60
48	-19.45	-13.05	-9.98	-6.57	-0.44	9.07	18.58	24.71	28.09	31.19	37.60
49	-19.05	-12.80	-9.78	-6.43	-0.52	8.75	18.02	23.99	27.28	30.30	36.55
50	-22.40	-15.82	-12.63	-9.16	-2.85	6.92	16.70	23.00	26.47	29.66	36.25
51	-25.37	-18.12	-14.61	-10.79	-3.86	6.90	17.66	24.59	28.41	31.92	39.17
52	-25.82	-18.21	-14.52	-10.50	-3.21	6.09	19.40	26.69	30.70	34.39	42.00
53	-27.42	-19.52	-15.69	-11.53	-3.97	7.75	19.48	27.04	31.20	35.03	42.92
54	-30.97	-22.76	-18.78	-14.45	-6.60	5.59	17.78	25.64	29.96	33.94	42.15
55	-34.49	-25.87	-21.70	-17.16	-8.90	3.89	16.68	24.93	29.48	33.65	42.27
56	-34.03	-25.45	-21.29	-16.76	-8.54	4.21	16.95	25.17	29.70	33.86	42.45
57	-36.76	-27.67	-23.26	-18.47	-9.77	3.73	17.23	25.94	30.73	35.14	44.23
58	-42.67	-32.84	-28.08	-22.89	-13.48	1.12	15.71	25.13	30.31	35.07	44.91
59	-38.05	-27.66	-23.60	-19.18	-11.15	1.30	13.76	21.79	26.21	30.27	38.66
60	-51.15	-40.31	-35.06	-29.34	-16.97	-2.88	13.21	23.59	29.30	34.55	45.39
61	-49.51	-39.00	-33.91	-28.37	-16.30	-2.70	12.90	22.97	28.51	33.60	44.11
62	-48.26	-37.99	-33.02	-27.60	-17.77	-2.53	12.71	22.54	27.96	32.93	43.20
63	-47.29	-37.20	-32.31	-26.99	-17.33	-2.35	12.62	22.29	27.60	32.49	42.58
64	-46.04	-36.19	-31.42	-26.23	-16.80	-2.18	12.43	21.86	27.05	31.82	41.67
65	-45.04	-35.38	-30.70	-25.61	-16.36	-2.02	12.32	21.57	26.67	31.35	41.01
66	-44.04	-34.56	-29.97	-24.98	-15.91	-1.84	12.22	21.29	26.29	30.88	40.35
67	-42.79	-33.55	-29.08	-24.22	-15.38	-1.67	12.03	20.87	25.74	30.21	39.44
68	-41.82	-32.77	-28.38	-23.61	-14.94	-1.50	11.94	20.61	25.38	29.77	38.82
69	-40.57	-31.76	-27.49	-22.84	-14.41	-1.33	11.75	20.19	24.83	29.10	37.91
70	-39.56	-30.94	-26.76	-22.21	-13.96	-1.15	11.65	19.91	24.45	28.63	37.26

TABLE 3.10. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

OCTOBER

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.16	-7.07	-5.05	-4.95	-2.95	.15	3.25	5.26	6.36	7.38	9.47
1	-14.75	-11.30	-9.62	-7.90	-4.43	.64	5.77	7.08	10.30	12.58	16.07
2	-16.59	-13.09	-11.35	-9.54	-6.18	-.98	4.22	7.58	9.42	11.12	14.64
3	-18.72	-15.04	-13.25	-11.72	-7.80	-2.33	3.13	6.65	8.59	10.39	14.06
4	-20.83	-16.97	-15.10	-13.05	-9.36	-7.62	2.11	5.81	7.85	9.72	13.59
5	-23.35	-19.02	-17.07	-14.94	-11.00	-5.10	.88	4.73	6.36	8.41	12.84
6	-25.18	-21.77	-19.63	-17.21	-13.09	-6.55	-.01	4.21	6.53	8.67	13.08
7	-27.79	-25.73	-23.23	-20.62	-15.79	-9.23	-.79	4.05	6.72	9.17	14.22
8	-30.83	-30.09	-27.30	-24.28	-18.78	-10.26	-1.77	3.76	6.79	9.57	15.31
9	-42.04	-35.35	-32.11	-29.53	-22.13	-17.25	-2.71	4.09	7.62	10.96	17.55
10	-47.95	-40.34	-36.65	-32.64	-25.35	-14.05	-2.75	4.54	8.55	12.24	19.85
11	-53.34	-45.44	-41.32	-36.84	-28.70	-10.03	-3.46	4.68	9.17	13.29	21.79
12	-55.93	-47.31	-43.11	-38.59	-30.37	-17.53	-4.74	3.52	8.06	12.24	20.86
13	-54.42	-46.24	-42.29	-37.97	-30.14	-14.00	-5.36	1.77	6.28	10.24	18.42
14	-49.26	-41.96	-38.42	-34.68	-27.59	-10.75	-5.82	1.07	4.92	8.45	15.75
15	-40.74	-34.75	-31.33	-28.65	-22.83	-13.93	-4.93	.79	3.96	6.98	12.91
16	-31.59	-26.78	-24.44	-21.26	-17.23	-10.14	-2.99	1.62	4.16	6.49	11.31
17	-23.68	-19.73	-17.82	-15.73	-11.95	-6.03	-.22	3.57	5.05	7.56	11.52
18	-17.31	-14.05	-12.48	-10.76	-7.64	-2.81	2.03	5.14	6.86	8.44	11.69
19	-12.36	-10.12	-8.74	-7.24	-4.51	-.23	3.25	6.07	3.17	9.55	12.40
20	-10.45	-7.78	-6.45	-4.69	-2.55	1.40	5.34	7.98	9.28	10.57	13.22
21	-9.04	-6.52	-5.30	-3.97	-1.56	2.13	9.32	8.73	9.66	10.87	13.37
22	-9.00	-6.39	-5.12	-3.74	-1.23	2.65	6.54	9.04	10.42	11.69	14.31
23	-9.12	-6.39	-5.05	-3.51	-.93	3.09	7.15	3.73	11.22	12.55	15.23
24	-10.05	-6.04	-4.68	-3.11	-1.31	7.07	7.44	10.26	11.81	13.24	16.19
25	-11.14	-5.87	-4.22	-2.43	-1.48	1.86	6.90	10.15	11.34	13.59	16.99
26	-13.26	-5.76	-4.03	-2.03	-1.45	.95	5.41	9.43	11.87	13.65	17.33
27	-15.44	-5.61	-3.83	-1.70	-1.01	3.73	6.54	9.84	11.66	13.33	16.78
28	-16.62	-5.44	-3.54	-1.42	-.93	5.79	9.40	11.39	13.21	16.99	17.85
29	-18.75	-5.26	-3.25	-1.13	-.76	1.26	5.11	9.22	11.48	13.56	17.85
30	-20.36	-5.07	-2.95	-.88	-.51	2.13	5.24	10.00	12.62	15.03	20.00
31	-24.26	-4.88	-2.65	-.60	-.23	3.88	4.55	9.99	12.98	15.74	21.42
32	-29.18	-4.69	-2.33	-.33	-.07	5.27	3.26	9.40	12.78	15.89	22.30
33	-34.34	-4.50	-2.01	-.07	.10	6.27	.96	7.68	11.38	14.78	21.80
34	-40.71	-4.31	-1.69	.19	.37	7.69	-.69	6.40	10.31	13.90	21.31
35	-44.70	-4.12	-1.37	.48	.64	9.32	-1.00	6.89	11.24	15.23	23.48
36	-49.95	-3.93	-1.05	.77	.93	11.22	-.21	8.61	13.46	17.92	27.13
37	-54.88	-3.74	-.74	1.05	1.16	13.21	1.16	8.11	13.21	17.89	27.57
38	-58.62	-3.55	-.43	1.34	1.42	14.58	1.58	8.50	14.05	19.15	29.67
39	-64.12	-3.36	-.12	1.63	1.69	16.27	3.31	6.87	12.48	17.63	28.29
40	-66.46	-3.17	.19	1.92	1.93	18.24	3.61	6.91	12.71	18.04	29.03
41	-68.89	-2.98	.48	2.19	2.19	20.44	4.13	6.64	12.58	18.03	29.29
42	-70.97	-2.79	.77	2.46	2.46	22.84	4.44	6.61	12.70	18.29	29.83
43	-72.98	-2.60	1.05	2.73	2.73	25.44	5.53	6.99	10.78	16.10	27.09
44	-70.77	-2.41	1.34	3.00	3.00	28.24	6.73	3.81	9.62	14.95	25.97
45	-72.12	-2.22	1.63	3.27	3.27	31.24	7.71	2.80	8.58	13.90	24.97
46	-72.88	-2.03	1.92	3.54	3.54	34.44	8.31	2.48	8.42	13.88	25.16
47	-75.25	-1.84	2.21	3.81	3.81	37.84	9.87	.64	6.43	11.75	22.73
48	-75.07	-1.65	2.50	4.08	4.08	41.44	11.54	-1.12	4.61	9.88	20.76
49	-76.14	-1.46	2.79	4.35	4.35	45.24	14.01	-3.97	1.57	6.65	17.14
50	-76.32	-1.27	3.08	4.62	4.62	49.24	16.36	-3.48	2.11	7.24	17.84
51	-76.54	-1.08	3.37	4.89	4.89	53.44	18.69	-5.40	.15	5.24	15.76
52	-77.93	-.89	3.66	5.16	5.16	57.84	21.00	-6.34	-.32	4.25	14.72
53	-78.53	-.70	3.95	5.43	5.43	62.44	23.29	-8.04	-2.62	2.37	12.66
54	-79.00	-.51	4.24	5.70	5.70	67.24	25.57	-9.42	-1.77	3.42	14.14
55	-81.30	-.32	4.53	5.97	5.97	72.24	27.84	-10.67	-1.64	3.67	14.63
56	-82.99	-.13	4.82	6.24	6.24	77.44	30.09	-11.91	-7.42	4.66	16.36
57	-87.82	.06	5.11	6.51	6.51	82.84	32.32	-13.17	-1.01	8.23	20.65
58	-90.00	.25	5.40	6.78	6.78	88.44	34.54	-14.41	2.21	8.26	20.40
59	-87.70	.44	5.69	7.05	7.05	94.24	36.75	-15.63	5.56	11.86	24.88
60	-91.05	.63	5.98	7.32	7.32	100.24	38.96	-16.84	6.72	12.97	25.86
61	-88.96	.82	6.27	7.59	7.59	106.44	41.17	-18.05	7.65	13.79	26.48
62	-86.51	1.01	6.56	7.86	7.86	112.84	43.38	-19.26	8.37	14.39	26.80
63	-83.78	1.20	6.85	8.13	8.13	119.44	45.59	-20.47	9.27	15.18	27.38
64	-81.31	1.39	7.14	8.40	8.40	126.24	47.80	-21.68	10.19	16.00	28.00
65	-78.87	1.58	7.43	8.67	8.67	133.24	49.99	-22.89	11.10	16.81	28.60
66	-76.39	1.77	7.72	8.94	8.94	140.44	52.18	-24.10	12.00	17.61	29.19
67	-73.93	1.96	8.01	9.21	9.21	147.84	54.37	-25.31	12.74	18.22	29.53
68	-71.22	2.15	8.30	9.48	9.48	155.44	56.56	-26.52	13.68	19.07	30.18
69	-68.79	2.34	8.59	9.75	9.75	163.24	58.75	-27.73	14.60	19.88	30.79
70	-66.34	2.53	8.88	10.02	10.02	171.24	60.94	-28.94			

TABLE 3.11. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH

NOVEMBER

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.10	-7.94	-6.39	-5.75	-3.69	-4.48	2.73	4.30	5.24	6.39	9.15
1	-18.06	-14.03	-12.08	-9.96	-8.10	-7.11	5.87	8.73	11.38	13.81	17.84
2	-20.94	-16.73	-14.67	-12.47	-8.44	-7.13	4.07	3.10	15.32	17.35	16.57
3	-24.03	-19.63	-17.50	-15.10	-10.09	-8.45	2.67	6.28	8.00	10.72	15.12
4	-26.80	-22.24	-20.04	-17.54	-13.28	-9.53	.23	4.53	5.39	7.17	13.74
5	-30.76	-25.83	-23.44	-20.94	-16.12	-10.80	-1.47	3.20	5.35	3.04	13.17
6	-35.19	-29.80	-27.20	-24.36	-19.21	-11.22	-3.24	1.92	4.75	7.35	12.74
7	-39.20	-33.46	-30.69	-27.66	-22.17	-12.66	-5.15	.34	3.27	6.14	11.88
8	-44.35	-38.05	-34.32	-31.67	-25.64	-14.03	-6.92	-1.39	2.43	5.48	11.79
9	-48.61	-41.92	-38.67	-35.15	-28.74	-15.30	-3.66	-2.45	1.00	4.52	11.01
10	-53.91	-46.59	-43.05	-39.13	-32.13	-16.32	-10.47	-3.45	.41	3.35	11.27
11	-58.06	-50.58	-46.66	-42.62	-35.27	-17.87	-12.48	-5.10	-1.08	2.64	10.31
12	-60.41	-52.65	-48.89	-44.80	-37.37	-19.35	-14.37	-6.99	-2.02	.36	8.72
13	-59.14	-51.71	-48.11	-44.12	-37.09	-19.04	-15.11	-7.20	-3.28	-1.38	7.05
14	-53.97	-47.31	-44.00	-40.53	-34.21	-19.33	-14.45	-3.02	-4.57	-1.34	5.21
15	-48.57	-40.03	-37.34	-34.42	-29.11	-20.32	-12.66	-7.35	-4.42	-1.75	3.87
16	-38.85	-33.94	-31.56	-29.93	-24.03	-17.93	-3.71	-5.01	-2.42	-1.04	4.36
17	-32.99	-28.46	-26.27	-24.86	-19.54	-17.82	-5.10	-1.77	.50	2.81	7.34
18	-26.26	-22.31	-20.30	-19.31	-14.52	-14.65	-2.78	1.00	1.03	5.00	8.96
19	-20.67	-17.28	-15.67	-14.94	-10.59	-10.55	.61	2.74	4.22	6.17	9.55
20	-17.81	-14.63	-13.00	-11.41	-8.37	-7.04	1.09	4.13	5.82	7.35	10.53
21	-16.85	-13.70	-12.17	-10.52	-7.50	-6.87	1.85	4.86	6.52	8.05	11.19
22	-17.54	-14.21	-12.60	-10.34	-7.66	-7.71	2.23	5.42	7.17	8.79	12.12
23	-18.80	-15.28	-13.57	-11.71	-8.34	-8.11	2.12	5.40	7.25	8.06	12.59
24	-21.16	-17.29	-15.42	-13.39	-9.60	-9.46	1.79	5.47	7.51	8.38	13.24
25	-24.47	-20.16	-18.07	-15.80	-11.67	-11.26	1.14	5.27	7.54	8.63	13.94
26	-27.27	-22.63	-20.39	-17.34	-13.50	-13.62	.26	4.63	7.14	7.39	14.02
27	-31.43	-26.17	-23.62	-20.85	-15.81	-14.00	-1.13	4.85	7.02	10.17	15.44
28	-31.89	-26.58	-24.01	-21.21	-16.12	-14.24	-1.35	4.73	7.53	10.10	15.42
29	-35.63	-29.96	-27.22	-24.23	-18.80	-10.39	-1.98	3.45	6.43	9.18	14.85
30	-38.89	-32.82	-29.98	-26.78	-20.97	-11.96	-2.95	2.87	6.07	9.01	15.08
31	-41.19	-35.15	-32.23	-29.04	-23.26	-14.30	-5.33	.45	3.63	6.55	12.59
32	-43.51	-37.58	-34.71	-31.58	-25.90	-17.10	-8.29	-2.62	.51	3.38	9.31
33	-49.61	-42.95	-39.72	-36.21	-29.84	-19.95	-10.06	-3.68	-1.17	3.06	9.72
34	-54.40	-47.28	-43.83	-40.08	-33.26	-22.69	-12.12	-5.30	-1.55	1.90	9.02
35	-57.35	-50.01	-46.45	-42.57	-35.54	-24.63	-13.72	-6.69	-2.82	.74	8.09
36	-61.92	-54.04	-50.22	-46.07	-38.52	-26.82	-15.11	-7.57	-3.41	.41	8.29
37	-65.06	-56.80	-52.80	-48.44	-40.53	-28.25	-16.00	-8.09	-3.73	.27	8.54
38	-67.03	-58.82	-54.84	-50.51	-42.65	-30.46	-18.27	-10.41	-6.09	-2.11	6.10
39	-69.53	-61.11	-57.02	-52.57	-44.49	-31.96	-19.43	-11.35	-6.90	-2.81	5.63
40	-71.74	-63.42	-59.39	-55.01	-47.04	-34.70	-22.35	-14.38	-10.00	-5.97	2.35
41	-70.88	-62.99	-59.17	-55.01	-47.45	-35.73	-24.02	-16.46	-12.30	-8.48	-1.58
42	-70.02	-62.56	-58.94	-55.00	-47.85	-36.77	-25.69	-18.54	-14.60	-10.99	-3.52
43	-68.98	-62.03	-58.66	-54.99	-48.33	-38.01	-27.68	-21.02	-17.36	-13.99	-7.03
44	-68.23	-61.56	-58.32	-54.80	-48.41	-38.50	-28.59	-22.20	-18.68	-15.45	-8.77
45	-74.85	-67.25	-63.58	-59.57	-52.31	-41.03	-29.76	-22.50	-18.49	-14.82	-7.22
46	-76.35	-68.61	-64.86	-60.78	-53.37	-41.89	-30.40	-23.00	-18.92	-15.17	-7.43
47	-81.81	-73.50	-69.48	-65.10	-57.14	-44.81	-32.47	-24.52	-20.14	-16.12	-7.81
48	-87.90	-78.71	-74.26	-69.41	-60.61	-46.97	-33.33	-24.53	-19.68	-15.23	-6.04
49	-92.50	-82.36	-77.74	-72.50	-62.98	-48.23	-33.47	-23.95	-18.71	-13.89	-3.95
50	-96.09	-86.08	-81.23	-75.95	-66.37	-51.51	-36.65	-27.06	-21.79	-16.94	-6.93
51	-99.40	-88.99	-83.95	-78.46	-68.49	-53.04	-37.58	-27.62	-22.13	-17.09	-6.68
52	-99.79	-89.45	-84.44	-78.99	-69.09	-53.74	-38.39	-28.49	-23.04	-18.03	-7.69
53	-103.26	-92.38	-87.11	-81.38	-70.96	-54.82	-38.67	-28.25	-22.52	-17.25	-6.37
54	-100.50	-90.47	-85.61	-80.32	-70.72	-55.82	-40.93	-31.33	-26.04	-21.18	-11.15
55	-98.98	-89.27	-84.57	-79.46	-70.16	-55.75	-41.34	-32.05	-26.93	-22.23	-12.52
56	-105.84	-94.79	-89.44	-83.62	-73.04	-56.64	-40.24	-29.67	-23.84	-18.49	-7.44
57	-112.79	-100.43	-94.45	-87.93	-76.10	-57.75	-39.41	-27.57	-21.06	-15.07	-2.71
58	-108.44	-96.85	-91.28	-85.13	-74.04	-56.84	-39.64	-28.54	-22.44	-16.82	-5.24
59	-100.24	-90.46	-85.72	-80.56	-71.19	-56.67	-42.15	-32.78	-27.62	-22.88	-13.10
60	-110.10	-98.60	-93.03	-86.98	-75.97	-58.91	-41.85	-30.84	-24.78	-19.22	-7.72
61	-109.87	-98.09	-92.38	-86.17	-74.90	-57.41	-39.93	-28.65	-22.44	-16.73	-4.95
62	-107.47	-95.89	-90.28	-84.18	-73.10	-55.91	-38.72	-27.64	-21.53	-15.92	-4.35
63	-105.07	-93.69	-88.18	-82.19	-71.29	-54.40	-37.52	-26.62	-20.63	-15.12	-3.74
64	-102.67	-91.50	-86.08	-80.19	-69.49	-52.90	-36.31	-25.61	-19.72	-14.31	-3.13
65	-100.34	-89.35	-84.03	-78.24	-67.72	-51.41	-35.09	-24.57	-18.78	-13.46	-2.47
66	-97.71	-86.97	-81.77	-76.11	-65.84	-49.90	-33.97	-23.69	-18.03	-12.83	-2.10
67	-95.31	-84.77	-79.67	-74.12	-64.03	-49.40	-32.76	-22.68	-17.12	-12.02	-1.49
68	-92.91	-82.58	-77.57	-72.12	-62.23	-46.89	-31.56	-21.66	-16.22	-11.21	-1.88
69	-90.51	-80.38	-75.47	-70.13	-60.43	-45.39	-30.35	-20.65	-15.31	-10.40	-1.27
70	-88.11	-78.18	-73.37	-68.14	-58.63	-43.89	-29.14	-19.64	-14.40	-9.59	.34

TABLE 3.12. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
30 DEGREE FLIGHT AZIMUTH
DECEMBER

Alt(km)	Cumulative Percentage Probability										
	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.71	-8.54	-7.44	-6.33	-4.25	-1.01	2.22	4.30	5.45	6.51	8.64
1	-20.27	-15.91	-13.81	-11.56	-7.22	-3.86	5.62	9.70	12.09	14.20	18.56
2	-23.46	-19.01	-16.00	-14.50	-10.23	-3.61	7.01	7.27	9.62	11.78	16.24
3	-26.92	-22.33	-18.11	-17.76	-12.31	-6.50	3.30	4.65	7.11	9.33	13.91
4	-30.63	-25.81	-23.44	-20.34	-16.32	-3.17	-2.02	2.60	5.14	7.47	12.29
5	-35.23	-29.87	-27.27	-24.45	-19.22	-11.36	-3.40	1.73	4.55	7.15	12.51
6	-39.39	-33.63	-30.31	-27.37	-22.42	-13.94	-5.45	.02	3.04	5.31	11.52
7	-44.53	-38.23	-35.17	-31.45	-25.61	-18.45	-7.08	-1.05	2.20	5.33	11.64
8	-49.39	-42.54	-39.27	-35.65	-29.09	-13.94	-3.30	-2.25	1.35	4.66	11.50
9	-54.00	-46.28	-42.77	-38.40	-32.03	-24.30	-11.56	-3.35	1.19	5.33	12.70
10	-58.51	-50.33	-46.77	-42.24	-35.72	-28.51	-13.29	-4.77	-1.08	4.23	13.14
11	-62.15	-53.25	-49.54	-45.54	-41.37	-24.44	-15.01	-6.35	-1.53	2.41	11.95
12	-65.74	-56.63	-52.51	-48.14	-44.17	-28.98	-16.78	-8.02	-4.50	-1.61	7.61
13	-69.58	-59.35	-55.27	-50.64	-46.73	-33.73	-27.52	-17.06	-10.05	-2.65	4.67
14	-73.46	-62.31	-58.15	-53.30	-49.14	-38.77	-25.17	-15.43	-9.21	-5.70	3.85
15	-77.45	-65.45	-60.82	-56.03	-51.12	-44.73	-21.37	-13.01	-7.52	-4.65	3.71
16	-81.45	-68.74	-64.39	-59.42	-54.74	-49.74	-17.46	-10.18	-5.48	-2.90	4.38
17	-85.45	-72.13	-67.80	-62.95	-59.53	-54.73	-13.21	-8.84	-2.73	-1.47	5.91
18	-89.45	-75.64	-71.43	-66.70	-64.01	-60.01	-9.20	-3.32	-1.27	2.43	8.25
19	-93.45	-79.15	-74.94	-70.20	-67.25	-64.93	-1.20	2.46	4.49	6.33	10.16
20	-97.45	-82.66	-78.45	-73.70	-70.46	-67.94	5.49	2.91	4.81	6.56	10.16
21	-101.45	-86.17	-81.96	-77.21	-73.71	-70.94	9.97	2.78	4.64	6.36	9.91
22	-105.45	-89.68	-85.47	-80.72	-76.92	-73.94	13.97	2.65	4.47	6.19	11.13
23	-109.45	-93.19	-88.98	-84.23	-80.13	-77.15	17.97	2.52	4.30	6.02	12.09
24	-113.45	-96.70	-92.49	-87.74	-83.33	-79.37	21.97	2.39	4.13	5.85	13.09
25	-117.45	-100.21	-96.00	-91.25	-86.53	-82.60	25.97	2.26	3.96	5.68	14.09
26	-121.45	-103.72	-99.51	-94.76	-89.78	-85.85	29.97	2.13	3.79	5.51	15.09
27	-125.45	-107.23	-103.02	-98.27	-92.99	-89.06	33.97	2.00	3.62	5.34	16.09
28	-129.45	-110.74	-106.53	-101.78	-96.20	-92.27	37.97	1.87	3.45	5.17	17.09
29	-133.45	-114.25	-110.04	-105.29	-100.41	-95.48	41.97	1.74	3.28	5.00	18.09
30	-137.45	-117.76	-113.55	-108.80	-103.62	-98.69	45.97	1.61	3.11	4.83	19.09
31	-141.45	-121.27	-117.06	-112.31	-107.13	-101.90	49.97	1.48	2.94	4.66	20.09
32	-145.45	-124.78	-120.57	-115.82	-110.64	-105.41	53.97	1.35	2.77	4.49	21.09
33	-149.45	-128.29	-124.08	-119.33	-114.15	-109.92	57.97	1.22	2.60	4.32	22.09
34	-153.45	-131.80	-127.59	-122.84	-117.66	-113.43	61.97	1.09	2.43	4.15	23.09
35	-157.45	-135.31	-131.10	-126.35	-121.17	-116.94	65.97	0.96	2.26	3.98	24.09
36	-161.45	-138.82	-134.61	-129.86	-124.68	-120.45	69.97	0.83	2.09	3.81	25.09
37	-165.45	-142.33	-138.12	-133.37	-128.19	-123.96	73.97	0.70	1.92	3.64	26.09
38	-169.45	-145.84	-141.63	-136.88	-131.70	-127.47	77.97	0.57	1.75	3.47	27.09
39	-173.45	-149.35	-145.14	-140.39	-135.21	-130.98	81.97	0.44	1.58	3.30	28.09
40	-177.45	-152.86	-148.65	-143.90	-138.72	-134.49	85.97	0.31	1.41	3.13	29.09
41	-181.45	-156.37	-152.16	-147.41	-142.23	-138.00	89.97	0.18	1.24	2.96	30.09
42	-185.45	-159.88	-155.67	-150.92	-145.74	-141.51	93.97	0.05	1.07	2.79	31.09
43	-189.45	-163.39	-159.18	-154.43	-149.25	-145.02	97.97	0.00	0.90	2.62	32.09
44	-193.45	-166.90	-162.69	-157.94	-152.76	-148.53	101.97	0.00	0.73	2.45	33.09
45	-197.45	-170.41	-166.20	-161.45	-156.27	-152.04	105.97	0.00	0.56	2.28	34.09
46	-201.45	-173.92	-169.71	-164.96	-159.78	-155.55	109.97	0.00	0.39	2.11	35.09
47	-205.45	-177.43	-173.22	-168.47	-163.29	-159.06	113.97	0.00	0.22	1.94	36.09
48	-209.45	-180.94	-176.73	-171.98	-166.80	-162.57	117.97	0.00	0.05	1.77	37.09
49	-213.45	-184.45	-180.24	-175.49	-170.31	-166.08	121.97	0.00	0.00	1.60	38.09
50	-217.45	-187.96	-183.75	-179.00	-173.82	-169.59	125.97	0.00	0.00	1.43	39.09
51	-221.45	-191.47	-187.26	-182.51	-177.33	-173.10	129.97	0.00	0.00	1.26	40.09
52	-225.45	-194.98	-190.77	-186.02	-180.84	-176.61	133.97	0.00	0.00	1.09	41.09
53	-229.45	-198.49	-194.28	-189.53	-184.35	-180.12	137.97	0.00	0.00	0.92	42.09
54	-233.45	-202.00	-197.79	-193.04	-187.86	-183.63	141.97	0.00	0.00	0.75	43.09
55	-237.45	-205.51	-201.30	-196.55	-191.37	-187.14	145.97	0.00	0.00	0.58	44.09
56	-241.45	-209.02	-204.81	-200.06	-194.88	-190.65	149.97	0.00	0.00	0.41	45.09
57	-245.45	-212.53	-208.32	-203.57	-198.39	-194.16	153.97	0.00	0.00	0.24	46.09
58	-249.45	-216.04	-211.83	-207.08	-201.90	-197.67	157.97	0.00	0.00	0.07	47.09
59	-253.45	-219.55	-215.34	-210.59	-205.41	-201.18	161.97	0.00	0.00	0.00	48.09
60	-257.45	-223.06	-218.85	-214.10	-208.92	-204.69	165.97	0.00	0.00	0.00	49.09
61	-261.45	-226.57	-222.36	-217.61	-212.43	-208.20	169.97	0.00	0.00	0.00	50.09
62	-265.45	-230.08	-225.87	-221.12	-215.94	-211.71	173.97	0.00	0.00	0.00	51.09
63	-269.45	-233.59	-229.38	-224.63	-219.45	-215.22	177.97	0.00	0.00	0.00	52.09
64	-273.45	-237.10	-232.89	-228.14	-222.96	-218.73	181.97	0.00	0.00	0.00	53.09
65	-277.45	-240.61	-236.40	-231.65	-226.47	-222.24	185.97	0.00	0.00	0.00	54.09
66	-281.45	-244.12	-240.01	-235.16	-230.98	-225.75	189.97	0.00	0.00	0.00	55.09
67	-285.45	-247.63	-243.52	-238.67	-234.49	-229.26	193.97	0.00	0.00	0.00	56.09
68	-289.45	-251.14	-247.03	-242.18	-238.00	-233.77	197.97	0.00	0.00	0.00	57.09
69	-293.45	-254.65	-250.54	-245.69	-241.51	-237.28	201.97	0.00	0.00	0.00	58.09
70	-297.45	-258.16	-254.05	-249.20	-245.02	-241.79	205.97	0.00	0.00	0.00	59.09

TABLE 4.1. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

JANUARY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.63	-6.72	-5.73	-4.78	-2.95	-1.11	2.73	4.56	5.77	6.49	9.40
1	-17.50	-12.95	-10.79	-8.34	-3.98	2.79	9.55	17.91	16.31	18.52	23.07
2	-15.03	-10.33	-8.03	-5.53	-1.98	6.08	13.14	17.63	20.19	22.50	27.25
3	-14.13	-8.96	-6.45	-3.73	1.22	8.90	16.57	21.52	24.24	26.75	31.92
4	-13.93	-8.18	-5.40	-2.37	3.14	11.67	20.20	25.70	28.73	31.51	37.26
5	-14.49	-7.97	-4.81	-1.37	4.87	14.55	24.22	30.40	33.90	37.07	43.59
6	-14.25	-7.09	-3.62	0.16	7.02	17.65	28.28	35.14	38.92	42.39	49.55
7	-15.69	-7.53	-3.58	0.73	8.54	20.66	32.79	40.70	44.90	48.85	57.02
8	-16.49	-7.53	-3.19	1.53	10.11	23.41	36.70	45.22	50.00	54.34	63.37
9	-17.83	-7.97	-3.19	2.00	11.44	26.08	40.71	50.15	55.25	60.12	69.99
10	-19.07	-8.27	-3.03	2.66	13.00	29.03	45.07	55.41	61.10	66.33	77.17
11	-19.54	-8.07	-2.51	3.54	14.52	31.54	48.57	59.55	65.60	71.15	82.63
12	-16.65	-5.43	0.00	5.92	16.65	37.30	49.96	60.69	66.61	72.04	83.26
13	-10.10	-1.33	4.40	7.55	18.89	43.39	47.88	57.23	62.28	67.11	76.89
14	-7.52	1.25	5.49	10.11	18.50	31.51	44.52	52.91	57.53	61.77	70.57
15	-6.57	1.27	5.06	10.20	16.70	28.33	39.97	47.47	51.60	55.40	63.24
16	-5.08	1.55	4.76	8.25	14.59	24.43	34.27	40.61	44.11	47.32	53.94
17	-6.86	1.90	1.98	5.12	10.82	19.66	28.50	34.21	37.35	40.23	46.19
18	-8.93	3.65	-1.09	1.70	6.75	14.59	22.44	27.49	30.23	32.84	37.17
19	-10.52	5.89	-3.67	-1.21	2.22	10.09	16.96	21.39	23.83	26.07	30.70
20	-11.83	7.69	-5.69	-1.50	0.47	6.62	12.77	16.73	18.92	20.92	25.07
21	-13.24	9.22	-7.27	-5.15	-1.30	4.67	10.64	14.48	16.61	18.58	22.59
22	-15.82	11.39	-9.25	-6.92	-2.69	3.87	10.44	14.67	17.00	19.14	23.57
23	-17.17	12.50	-10.24	-7.77	-3.30	3.03	10.57	15.04	17.51	19.77	24.44
24	-18.81	13.51	-11.09	-8.44	-3.65	2.74	11.22	16.01	18.65	21.07	26.09
25	-19.88	13.99	-11.03	-8.24	-3.10	4.67	12.53	17.59	20.38	22.94	28.27
26	-22.00	15.74	-12.71	-9.41	-3.42	5.87	15.16	21.15	24.45	27.49	33.74
27	-24.73	17.67	-14.25	-10.53	-3.77	6.70	17.19	23.94	27.66	31.08	38.14
28	-28.03	19.97	-16.89	-12.85	-4.28	7.88	18.42	22.12	25.25	28.14	34.09
29	-31.33	21.87	-18.24	-14.72	-4.24	8.80	18.84	25.32	28.89	32.17	38.93
30	-35.92	23.92	-19.95	-16.89	-4.52	10.91	22.35	29.72	33.78	37.51	45.22
31	-39.90	26.51	-21.43	-17.98	-4.09	12.60	25.12	33.19	37.63	41.72	50.15
32	-44.34	29.82	-24.49	-19.49	-3.68	13.13	26.83	35.84	40.74	45.25	54.85
33	-49.44	33.83	-27.95	-21.50	-2.54	12.90	28.35	38.31	43.79	48.84	59.29
34	-55.14	38.84	-31.20	-23.84	-3.26	12.68	28.63	38.91	44.57	49.77	60.51
35	-61.44	43.99	-35.25	-26.33	-5.05	12.45	29.41	40.54	46.67	52.30	63.93
36	-68.44	49.24	-39.63	-28.68	-6.19	12.74	30.96	42.70	47.94	53.15	64.94
37	-76.14	54.75	-43.85	-31.55	-7.55	13.03	32.36	44.78	49.17	55.11	67.38
38	-84.44	60.50	-47.95	-34.71	-9.52	13.87	32.97	45.28	50.07	57.92	70.91
39	-93.34	66.59	-51.85	-37.37	-11.55	14.39	33.30	45.50	52.21	59.38	73.79
40	-102.84	72.99	-55.55	-39.36	-13.77	14.91	34.54	47.19	54.16	61.86	75.12
41	-112.94	79.69	-59.05	-41.61	-16.07	15.43	35.75	48.45	55.44	63.59	77.03
42	-123.64	86.69	-62.35	-44.17	-18.00	16.95	36.98	49.89	57.00	65.79	79.53
43	-134.94	93.99	-65.45	-46.95	-20.03	18.36	38.75	51.90	59.14	67.95	82.15
44	-146.84	101.59	-68.35	-49.95	-22.16	19.97	41.02	54.60	62.08	69.95	84.76
45	-159.34	109.49	-71.15	-53.15	-24.03	22.16	44.03	58.13	65.89	73.03	87.15
46	-172.44	117.69	-74.75	-56.65	-25.51	23.88	46.25	60.67	68.61	75.91	90.98
47	-186.14	126.19	-79.15	-60.45	-27.13	25.51	47.99	62.49	70.47	77.80	92.95
48	-200.44	134.99	-83.55	-64.55	-28.63	26.71	49.56	64.30	72.42	79.87	95.27
49	-215.34	144.09	-88.05	-68.95	-30.03	27.13	50.21	65.10	73.29	80.83	96.38
50	-230.84	153.49	-92.75	-73.65	-31.10	28.90	50.00	64.90	73.10	80.64	96.20
51	-246.94	163.19	-97.65	-78.65	-32.96	29.14	50.84	65.95	74.27	81.92	97.71
52	-263.64	173.19	-102.85	-83.95	-34.98	29.14	52.31	67.25	75.48	83.04	98.66
53	-280.94	183.49	-108.35	-89.45	-37.15	30.01	53.18	67.14	74.82	81.88	100.59
54	-298.84	194.09	-114.15	-95.15	-39.45	31.58	55.87	70.97	78.73	85.67	106.98
55	-317.34	204.99	-120.15	-101.15	-41.95	33.58	58.71	77.63	85.85	93.40	113.94
56	-336.44	216.19	-126.45	-107.45	-44.55	35.92	60.30	83.76	93.09	101.65	121.50
57	-356.14	227.69	-133.05	-114.05	-47.25	38.02	62.76	86.00	96.40	104.11	129.60
58	-376.44	239.49	-139.95	-120.95	-50.15	40.39	65.39	88.54	99.14	106.88	138.24
59	-397.34	251.59	-147.15	-128.15	-53.25	42.99	68.30	91.45	102.15	109.88	147.44
60	-418.84	264.09	-154.65	-135.65	-56.55	45.84	71.45	94.75	105.45	113.15	157.14
61	-440.94	276.99	-162.45	-143.45	-60.05	48.99	74.99	98.49	109.19	116.69	167.44
62	-463.64	290.19	-170.55	-151.55	-63.75	52.39	78.39	102.69	113.49	120.49	178.24
63	-486.94	303.69	-178.95	-159.95	-67.65	56.09	82.09	107.19	118.19	124.59	189.54
64	-510.84	317.49	-187.65	-168.65	-71.75	59.99	85.99	111.99	123.19	128.99	201.24
65	-535.34	331.59	-196.65	-177.65	-76.05	64.19	90.19	117.19	128.19	133.79	213.44
66	-560.44	345.99	-205.95	-186.95	-80.55	68.69	94.69	122.69	133.69	138.99	226.14
67	-586.14	360.69	-215.55	-196.55	-85.15	73.49	99.49	128.49	139.49	144.59	239.44
68	-612.44	375.69	-225.45	-206.45	-89.95	78.59	104.59	134.59	145.59	150.59	253.24
69	-639.34	390.99	-235.65	-216.65	-94.95	83.99	109.99	140.99	151.99	156.99	267.54
70	-666.84	406.59	-246.15	-227.15	-100.15	89.69	115.69	147.69	158.69	163.69	282.24

TABLE 4.2. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

FEBRUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.94	-6.88	-5.88	-4.79	-2.81	2.25	3.32	5.30	6.38	7.39	9.45
1	-15.94	-11.41	-9.21	-6.82	-2.43	4.74	10.97	15.31	17.70	19.89	24.43
2	-14.13	-9.35	-7.04	-4.52	0.05	7.14	14.23	18.80	21.32	23.63	28.41
3	-13.57	-8.76	-5.70	-2.90	2.19	10.05	17.92	23.00	25.79	28.36	33.66
4	-13.48	-7.61	-4.77	-1.68	3.93	17.64	21.34	26.95	29.07	32.89	38.75
5	-14.31	-7.62	-4.39	-1.36	5.54	15.47	25.40	31.80	35.33	38.57	45.26
6	-15.14	-7.54	-3.86	0.14	7.41	18.68	29.95	37.22	41.23	44.90	52.50
7	-17.02	-8.36	-4.17	0.40	8.68	21.53	34.38	42.67	47.23	51.42	60.08
8	-19.06	-9.34	-4.64	0.49	9.79	24.22	38.65	47.95	53.07	57.78	67.50
9	-21.75	-10.78	-5.47	0.71	10.81	27.10	43.39	53.88	59.66	64.97	75.94
10	-23.51	-11.61	-5.87	0.41	11.80	29.45	47.10	58.49	64.76	70.52	82.41
11	-24.71	-11.99	-6.32	0.88	13.00	31.95	50.83	63.01	69.72	75.88	84.60
12	-21.40	-8.98	-2.96	1.50	15.48	35.93	52.37	64.20	70.81	76.83	89.25
13	-17.36	-5.84	-1.27	2.80	16.93	37.92	51.01	62.04	68.11	73.68	85.20
14	-12.74	-2.82	1.98	7.21	16.71	31.44	46.17	55.66	60.89	65.70	75.62
15	-9.21	-0.94	3.06	7.42	15.34	27.61	39.89	47.90	52.15	56.17	64.47
16	-8.01	-0.85	2.62	6.40	13.26	27.89	34.53	41.79	45.16	48.63	55.80
17	-6.70	-2.46	0.56	7.85	9.92	19.08	29.34	34.31	37.59	40.62	46.85
18	-11.12	-5.47	-2.73	0.25	5.67	14.06	22.46	27.87	30.36	33.60	39.25
19	-12.52	-7.56	-5.16	0.55	2.17	9.55	16.90	21.64	24.26	26.66	31.61
20	-14.65	-10.11	-7.91	0.51	1.16	5.8	12.32	16.67	19.06	21.26	25.81
21	-16.10	-11.84	-9.78	0.78	0.47	2.85	9.17	13.24	15.48	17.54	21.80
22	-16.75	-12.67	-10.69	0.54	0.63	1.42	7.48	11.78	13.53	15.51	19.59
23	-17.00	-12.94	-10.97	0.83	0.95	1.07	7.10	10.98	13.12	15.09	19.15
24	-16.76	-12.71	-10.75	0.61	0.74	1.27	7.28	11.16	13.29	15.26	19.31
25	-18.58	-14.15	-12.01	0.67	0.43	1.14	7.71	11.95	14.29	16.43	20.86
26	-19.18	-14.51	-12.27	0.79	0.33	1.60	8.52	12.99	15.45	17.71	22.38
27	-20.43	-15.37	-12.32	10.25	0.41	2.09	9.60	14.44	17.11	19.55	24.61
28	-18.72	-10.77	-8.37	0.76	1.03	6.32	13.66	18.40	21.01	23.40	28.35
29	-16.12	-8.69	-6.06	0.20	0.01	8.05	16.10	21.30	24.16	26.79	32.21
30	-16.22	-10.13	-7.19	0.98	10.88	19.91	25.73	28.94	31.89	34.89	37.97
31	-15.20	-8.78	-5.66	2.27	3.88	13.43	22.97	29.13	32.51	35.63	42.06
32	-15.96	-8.81	-5.34	1.58	5.27	15.88	26.49	33.33	37.10	40.56	47.71
33	-17.47	-10.05	-6.46	2.55	4.55	15.55	26.56	33.66	37.57	41.16	48.57
34	-18.51	-11.12	-7.54	3.64	3.44	14.42	25.39	32.47	36.37	39.95	47.34
35	-20.11	-12.40	-8.66	4.59	2.79	14.24	25.69	33.07	37.14	40.87	49.59
36	-21.00	-12.93	-9.02	4.77	2.95	14.93	26.91	34.63	38.88	42.79	50.86
37	-21.38	-13.15	-9.17	4.83	3.05	15.26	27.47	35.35	39.69	43.67	51.90
38	-22.09	-13.56	-9.42	4.93	3.25	15.92	28.59	36.76	41.26	45.39	53.93
39	-22.63	-13.86	-9.61	4.99	3.41	16.44	29.46	37.86	42.48	46.73	55.51
40	-24.29	-14.97	-10.46	5.55	3.36	17.19	31.02	39.93	44.84	49.35	58.67
41	-25.71	-15.61	-10.71	5.39	4.28	19.28	34.27	43.94	49.27	54.16	64.27
42	-22.91	-12.90	-8.05	2.78	6.80	21.66	36.52	46.10	51.37	56.22	66.23
43	-23.88	-13.21	-8.04	2.42	7.79	23.62	39.45	49.66	55.28	60.44	71.11
44	-25.43	-13.95	-8.39	2.34	8.65	25.68	42.72	53.71	59.76	65.32	76.80
45	-23.11	-11.54	-5.93	0.17	11.24	28.42	45.59	56.67	62.77	68.37	79.94
46	-21.93	-9.78	-4.14	2.00	13.15	30.44	47.72	58.87	65.01	70.65	82.30
47	-20.57	-8.87	-3.20	2.97	14.17	31.54	48.92	60.12	66.25	71.96	83.66
48	-17.20	-6.06	-0.67	5.21	15.87	32.40	48.94	59.60	65.47	70.66	82.00
49	-15.45	-4.34	1.04	6.89	17.53	34.01	50.50	61.13	66.99	72.37	83.44
50	-15.37	-4.22	1.18	7.06	17.73	34.28	50.82	61.50	67.37	72.77	83.92
51	-15.31	-3.98	1.51	7.48	18.32	35.14	51.96	62.81	68.78	74.27	85.60
52	-15.49	-3.74	1.96	8.15	19.40	36.84	54.28	65.52	71.72	77.41	89.16
53	-13.81	-2.00	3.73	9.96	21.27	38.81	56.35	67.67	73.90	79.62	91.44
54	-13.23	-1.10	4.77	11.17	22.78	40.78	58.78	70.39	76.79	82.66	94.79
55	-12.03	0.38	6.39	12.94	24.82	43.24	61.67	73.55	80.09	86.10	98.51
56	-13.07	-0.15	6.11	12.92	25.29	44.47	63.65	76.02	82.83	89.09	102.01
57	-19.06	-4.42	2.67	10.39	24.41	46.14	67.87	81.89	89.61	96.70	111.34
58	-9.59	2.87	8.91	15.48	27.41	45.90	64.40	76.33	83.69	90.23	100.66
59	-1.15	10.29	15.82	21.85	32.79	49.76	66.73	77.67	88.25	93.97	105.77
60	0.67	12.48	18.19	24.41	35.71	53.22	70.74	82.03	92.02	98.61	112.23
61	-9.02	4.60	11.19	18.37	31.40	51.60	71.81	84.84	94.44	101.88	119.16
62	-9.23	4.06	10.50	17.51	30.24	49.97	69.71	82.43	91.94	99.39	106.44
63	-9.73	3.31	9.63	16.50	28.99	48.35	67.71	80.20	87.07	93.50	103.39
64	-9.29	2.78	8.95	15.65	27.84	46.73	65.61	77.80	84.50	90.67	100.47
65	-10.26	2.17	8.19	14.75	26.65	45.11	63.56	75.46	82.02	88.04	97.55
66	-10.59	1.55	7.43	13.83	25.46	43.48	61.50	73.13	79.53	85.41	94.77
67	-10.80	1.02	6.75	12.98	24.30	41.85	59.41	70.73	76.96	82.69	91.71
68	-11.30	0.27	5.87	11.98	23.05	40.23	57.41	68.49	74.59	80.20	88.73
69	-11.53	-0.27	5.18	11.12	21.89	38.60	55.31	66.09	72.02	77.47	85.82
70	-11.85	-0.89	4.42	10.20	20.70	36.98	53.26	63.76	69.54	74.85	82.82

TABLE 4.3. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

MARCH

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.39	-7.28	-6.26	-5.15	-4.13	-3.01	-1.94	-0.86	0.27	1.30	2.41
1	-16.18	-11.76	-9.60	-7.30	-5.07	-3.48	-1.90	-0.32	0.81	1.84	2.95
2	-19.10	-9.55	-7.35	-4.95	-3.60	-2.14	-0.66	0.81	1.84	2.95	4.06
3	-19.32	-9.19	-6.70	-4.00	-2.92	-1.43	0.05	1.56	2.57	3.58	4.59
4	-14.63	-8.93	-6.17	-3.17	-2.28	-1.07	0.19	1.91	2.84	3.77	4.70
5	-14.80	-8.48	-5.41	-2.08	-1.37	-0.36	0.75	2.01	2.94	3.87	4.80
6	-14.60	-7.66	-4.29	-1.64	-0.91	-0.31	0.62	2.06	2.99	3.92	4.85
7	-15.52	-7.74	-3.97	-1.13	-0.57	-0.12	0.67	2.11	3.04	3.97	4.90
8	-15.66	-7.42	-3.34	-1.11	-0.19	0.12	0.24	2.12	3.05	3.98	4.91
9	-17.65	-8.21	-3.64	-1.33	0.35	0.77	0.37	2.13	3.06	3.99	4.92
10	-18.83	-8.54	-3.55	-1.88	1.74	2.03	0.31	2.14	3.07	4.00	4.93
11	-19.89	-8.84	-3.43	-2.74	12.93	20.34	45.75	55.33	62.16	67.51	72.89
12	-16.88	-6.01	-2.74	4.99	15.40	31.54	47.69	58.09	63.22	69.08	74.96
13	-11.22	-1.56	3.11	8.20	17.44	31.76	45.09	55.33	60.42	65.09	70.74
14	-6.50	1.56	5.48	9.70	17.42	29.37	41.33	49.04	53.29	57.19	61.25
15	-4.88	2.06	5.93	9.03	15.73	26.04	36.35	43.00	46.56	50.02	53.97
16	-4.08	1.83	4.62	7.00	13.45	22.21	30.97	36.62	39.74	42.60	45.50
17	-5.80	-0.43	2.17	5.01	10.15	19.12	26.10	31.24	34.07	36.68	39.25
18	-8.40	-3.57	-1.24	1.31	5.93	13.09	20.25	24.87	27.41	29.57	31.57
19	-11.10	-6.79	-4.68	-2.41	1.73	8.14	14.55	14.68	20.35	23.05	25.77
20	-13.03	-9.07	-7.15	-5.06	-1.27	4.62	10.50	14.30	16.39	18.30	20.22
21	-13.99	-10.38	-8.62	-6.72	-3.26	2.11	7.48	10.95	12.35	14.61	16.22
22	-15.45	-11.77	-9.98	-8.04	-4.52	-0.95	6.41	9.94	11.88	13.66	15.23
23	-16.33	-12.70	-10.94	-9.03	-5.55	-1.16	5.23	8.70	10.62	12.39	14.01
24	-17.47	-13.64	-11.79	-9.78	-6.12	-1.45	5.23	8.69	10.70	12.75	14.57
25	-18.74	-14.58	-12.57	-10.38	-6.40	-1.23	5.95	9.93	12.12	14.13	15.74
26	-19.34	-14.92	-12.76	-10.46	-6.23	-0.33	6.89	11.12	13.45	15.59	17.01
27	-21.32	-16.40	-14.02	-11.42	-6.71	-0.60	7.91	12.62	15.22	17.60	19.53
28	-24.48	-19.97	-17.88	-15.44	-11.15	-0.50	12.15	16.44	18.81	20.98	22.46
29	-24.37	-19.83	-17.19	-14.64	-10.00	7.18	14.37	19.01	21.56	23.90	25.74
30	-19.48	-18.18	-17.58	-14.77	-9.33	8.23	16.14	21.24	24.04	26.62	28.74
31	-18.25	-12.03	-9.02	-5.74	-2.21	9.43	18.66	24.61	27.89	30.90	33.12
32	-21.30	-14.25	-10.84	-7.13	-3.38	10.07	20.53	27.28	30.99	34.40	37.12
33	-22.73	-15.39	-11.84	-7.97	-3.94	9.95	20.84	27.86	31.73	35.28	38.22
34	-22.67	-15.32	-11.75	-7.84	-3.84	10.08	20.99	28.03	31.91	35.47	38.42
35	-21.59	-14.57	-11.18	-7.48	-3.77	9.64	20.06	26.77	30.47	33.86	36.88
36	-21.44	-14.81	-11.40	-7.69	-3.95	9.49	19.93	26.67	30.37	33.78	36.82
37	-20.64	-13.84	-10.55	-6.96	-3.45	9.65	19.75	26.26	29.85	33.14	36.94
38	-20.12	-13.38	-10.11	-6.55	-3.10	9.91	19.92	26.38	29.93	33.20	36.94
39	-20.28	-13.30	-9.92	-6.23	-2.45	10.42	21.19	27.87	31.56	34.94	38.12
40	-21.47	-14.00	-10.38	-6.44	-2.71	11.41	22.90	30.05	33.99	37.61	40.08
41	-23.23	-15.21	-11.33	-7.10	-2.57	12.47	24.38	32.05	36.28	40.16	42.18
42	-22.85	-14.63	-10.65	-6.32	-1.55	13.75	25.95	33.81	38.15	42.13	44.35
43	-21.64	-13.33	-9.31	-4.93	-3.02	15.34	27.67	35.62	40.00	44.02	46.33
44	-20.12	-11.76	-7.71	-3.30	-4.70	17.10	29.51	37.51	41.92	45.96	48.32
45	-17.39	-9.33	-5.43	-1.19	-6.52	18.47	30.43	38.14	42.38	46.28	48.34
46	-14.82	-6.98	-3.18	-0.96	-8.47	20.11	31.76	39.27	43.40	47.20	49.55
47	-13.05	-5.20	-1.40	2.73	10.24	21.88	33.53	41.04	45.17	48.97	50.82
48	-10.96	-3.14	0.59	4.69	12.13	23.68	35.23	42.68	46.78	50.55	52.33
49	-9.86	-1.94	1.90	6.08	13.66	25.42	37.17	44.76	48.93	52.77	54.69
50	-8.65	-0.73	3.11	7.29	14.88	26.64	38.41	45.99	50.17	54.01	56.94
51	-7.47	0.44	4.28	8.45	16.03	27.79	39.54	47.12	51.30	55.13	58.05
52	-6.94	1.07	4.96	9.18	16.86	28.76	40.66	48.34	52.57	56.45	59.47
53	-10.32	-1.54	2.72	7.35	15.75	28.79	41.83	50.24	54.87	59.12	61.91
54	-9.90	-1.12	3.13	7.76	16.16	29.19	42.22	50.62	55.25	59.50	62.28
55	-12.61	-3.05	1.58	6.62	15.77	29.96	44.15	53.30	58.34	62.97	65.53
56	-4.86	3.27	7.21	11.49	19.28	31.34	43.41	51.19	55.48	59.42	62.75
57	-0.25	7.23	10.85	14.79	21.95	33.06	44.16	51.32	55.26	58.88	62.36
58	-0.93	6.49	10.67	14.79	22.27	33.87	45.47	52.95	57.07	60.85	63.66
59	2.79	10.56	14.32	18.41	25.85	37.38	46.91	56.35	60.44	64.20	67.91
60	6.02	14.03	17.90	22.12	29.79	41.67	53.56	61.22	65.44	69.32	72.73
61	-3.83	6.04	10.82	16.02	25.47	40.12	54.77	64.22	69.42	74.20	78.07
62	-4.88	5.11	9.80	14.91	24.18	38.56	52.94	62.21	67.31	72.01	76.69
63	-5.44	4.09	8.71	13.73	22.86	37.00	51.15	60.27	65.30	69.91	74.44
64	-6.19	3.16	7.69	12.62	21.56	35.44	49.32	58.26	63.19	67.72	72.34
65	-6.93	2.23	6.67	11.51	20.28	33.88	47.49	56.26	61.10	65.53	70.00
66	-7.68	1.31	5.66	10.39	18.99	32.33	45.66	54.27	59.00	63.35	67.70
67	-8.44	0.37	4.63	9.27	17.70	30.77	43.83	52.26	56.90	61.17	65.97
68	-9.32	-0.67	3.52	8.08	16.37	29.21	42.05	50.34	54.90	59.09	63.74
69	-10.99	-1.61	2.49	6.96	15.07	27.65	40.23	48.34	52.80	56.91	61.38
70	-10.85	-2.55	1.47	5.84	13.78	26.09	38.41	46.35	50.72	54.74	58.03

TABLE 4.4. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

APRIL

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-3.51	-7.47	-8.42	-5.41	-3.46	-4.43	2.60	4.55	5.62	6.61	8.65
1	-16.38	-12.37	-10.43	-8.32	-4.48	1.48	7.43	11.27	13.39	15.33	19.34
2	-16.95	-12.56	-10.44	-8.13	-3.93	2.53	9.09	13.29	15.60	17.73	22.11
3	-18.57	-13.57	-11.15	-8.52	-3.77	3.68	11.10	15.89	18.52	20.94	25.94
4	-19.75	-14.15	-11.44	-8.49	-3.13	5.18	13.48	18.84	21.79	24.50	30.10
5	-20.71	-14.52	-11.52	-8.20	-2.33	6.96	16.05	21.98	25.24	28.24	34.43
6	-22.02	-15.16	-11.83	-8.21	-1.64	8.55	19.74	25.31	28.93	32.25	39.12
7	-23.63	-16.02	-12.33	-8.31	-1.03	10.27	21.58	28.86	32.88	36.56	44.18
8	-25.08	-16.74	-12.70	-8.30	-0.32	12.06	24.44	32.43	36.82	40.86	49.20
9	-26.73	-17.16	-14.56	-8.53	-0.79	13.78	27.95	37.09	42.12	46.75	56.29
10	-32.60	-21.80	-16.56	-10.37	-0.52	15.52	31.56	41.91	47.60	52.84	63.65
11	-34.86	-23.13	-17.46	-11.20	-0.05	17.35	34.75	45.97	52.15	57.82	69.55
12	-35.74	-23.42	-17.45	-10.35	0.85	19.14	37.44	49.23	55.73	61.70	74.03
13	-31.82	-20.07	-14.38	-8.10	2.05	20.48	37.91	49.15	55.34	61.03	72.77
14	-26.40	-15.03	-11.10	-5.57	4.20	19.51	34.81	44.69	50.12	55.11	65.42
15	-20.25	-11.75	-7.69	-2.23	4.96	17.42	39.98	38.08	42.54	46.64	55.10
16	-17.51	-10.00	-6.36	-1.21	3.60	14.15	34.70	31.51	35.26	39.70	45.81
17	-17.35	-11.09	-6.05	-4.74	1.27	10.59	19.90	25.91	29.22	32.26	38.54
18	-16.71	-11.52	-9.01	-6.27	-1.30	6.41	14.11	19.08	21.82	24.33	29.53
19	-17.44	-12.87	-10.66	-8.24	-2.87	2.92	9.71	14.08	16.44	18.71	23.28
20	-16.95	-11.00	-11.02	-3.33	-5.21	0.66	6.59	10.32	12.41	14.33	18.28
21	-15.86	-12.55	-10.94	-9.20	-6.02	-1.11	3.81	8.98	8.72	10.33	13.64
22	-15.09	-12.15	-10.73	-9.13	-6.37	-2.00	2.36	5.18	6.73	8.15	11.09
23	-15.04	-12.23	-10.87	-9.38	-6.69	-2.52	1.66	4.35	5.83	7.19	10.01
24	-16.34	-13.25	-11.76	-10.13	-7.17	-2.58	2.01	4.97	6.59	8.09	11.18
25	-17.94	-14.46	-12.77	-10.93	-7.59	-2.42	2.76	6.09	7.93	9.62	13.11
26	-19.19	-15.35	-13.44	-11.46	-7.78	-2.08	1.62	7.30	9.33	11.19	15.03
27	-19.17	-15.19	-13.27	-11.17	-7.36	-1.46	4.44	8.24	10.34	12.26	16.24
28	-18.65	-14.37	-12.28	-10.00	-5.87	0.53	6.93	11.06	13.34	15.43	19.74
29	-19.01	-14.63	-12.21	-9.80	-5.42	1.38	8.18	12.56	14.98	17.19	21.77
30	-19.67	-14.73	-12.34	-9.74	-5.02	2.30	9.62	14.35	16.95	19.34	24.27
31	-19.73	-14.59	-12.11	-9.40	-4.48	3.14	10.76	15.68	18.39	20.87	26.01
32	-19.78	-14.64	-12.15	-9.44	-4.52	3.12	10.75	15.67	18.38	20.87	26.02
33	-21.41	-15.85	-13.16	-10.23	-4.90	3.36	11.61	16.94	19.87	22.56	28.13
34	-23.25	-17.32	-14.46	-11.33	-5.66	3.13	11.93	17.60	20.72	23.59	29.51
35	-23.28	-17.37	-14.50	-11.39	-5.73	3.04	11.81	17.46	20.58	23.44	29.35
36	-20.81	-15.41	-12.79	-9.95	-4.78	3.24	11.26	16.43	19.27	21.89	27.29
37	-19.02	-14.12	-11.74	-9.15	-4.46	2.82	10.11	14.80	17.19	19.76	24.67
38	-20.44	-15.22	-12.69	-9.93	-4.93	2.82	10.58	15.58	18.34	20.87	26.09
39	-20.66	-15.32	-12.74	-9.92	-4.81	3.11	11.03	16.14	18.96	21.54	26.88
40	-20.77	-15.33	-12.70	-9.84	-4.63	3.44	11.50	16.71	19.57	22.21	27.64
41	-22.81	-16.71	-13.76	-10.54	-4.71	4.35	13.40	19.23	22.45	25.40	31.50
42	-23.67	-17.46	-14.45	-11.18	-5.23	3.98	13.20	19.14	22.42	25.42	31.63
43	-24.24	-17.74	-14.58	-11.16	-4.93	4.73	14.39	20.61	24.04	27.20	33.70
44	-25.76	-18.70	-15.28	-11.56	-4.81	5.66	16.14	22.89	26.61	30.03	37.09
45	-26.38	-18.95	-15.35	-11.43	-4.32	6.71	17.74	24.85	28.77	32.37	39.80
46	-27.23	-19.21	-15.32	-11.09	-3.41	8.50	20.42	28.10	32.33	36.21	44.24
47	-27.62	-19.41	-15.43	-11.11	-3.25	8.93	21.12	28.98	33.30	37.28	45.49
48	-28.65	-20.17	-16.07	-11.60	-3.48	9.11	21.69	29.81	34.28	38.39	46.86
49	-28.22	-19.83	-15.77	-11.35	-3.32	9.13	21.58	29.61	34.03	38.10	46.48
50	-28.37	-19.85	-15.73	-11.24	-3.09	9.55	22.20	30.35	34.84	38.96	47.48
51	-28.94	-20.16	-15.90	-11.27	-2.87	10.17	23.21	31.62	36.25	40.50	49.28
52	-26.72	-18.41	-14.39	-10.01	-2.06	10.28	22.61	30.56	34.94	38.96	47.27
53	-26.08	-17.84	-13.85	-9.51	-1.63	10.60	22.82	30.70	35.04	39.03	47.27
54	-25.15	-16.83	-12.80	-8.41	-1.45	11.90	24.25	32.22	36.60	40.63	48.95
55	-27.60	-18.51	-14.11	-9.31	-1.61	12.89	26.39	35.09	39.88	44.25	53.28
56	-25.96	-17.04	-12.71	-8.01	0.53	13.77	27.02	35.56	40.26	44.58	53.51
57	-27.23	-17.95	-13.46	-8.57	0.31	14.08	27.85	36.74	41.62	46.12	55.39
58	-34.81	-23.68	-18.29	-12.42	-1.77	14.75	31.27	41.92	47.79	53.18	64.31
59	-29.03	-19.40	-14.74	-9.67	-0.45	13.84	28.13	37.35	42.42	47.09	56.71
60	-29.51	-19.56	-14.74	-9.49	0.03	14.80	29.57	39.10	44.34	49.16	59.11
61	-26.90	-17.57	-13.10	-8.23	0.60	14.30	28.01	36.84	41.71	46.18	55.41
62	-26.81	-17.69	-13.27	-8.46	0.27	13.81	27.35	36.08	40.89	45.31	54.43
63	-26.73	-17.74	-13.38	-8.64	-0.03	13.31	26.66	35.27	40.01	44.37	53.36
64	-26.74	-17.86	-13.55	-8.87	-0.37	12.82	26.01	34.51	39.19	43.50	52.34
65	-27.05	-18.21	-13.93	-9.27	-0.81	12.32	25.44	33.90	38.56	42.85	51.69
66	-26.99	-18.27	-14.05	-9.46	-1.12	11.82	24.75	33.09	37.68	41.90	50.62
67	-27.01	-18.40	-14.23	-9.70	-1.46	11.32	24.10	32.34	36.88	41.05	49.65
68	-27.13	-18.61	-14.48	-9.99	-1.83	10.83	23.48	31.64	36.13	40.26	48.78
69	-27.17	-18.75	-14.67	-10.23	-2.17	10.33	22.83	30.89	35.33	39.41	47.83
70	-27.30	-18.97	-14.93	-10.53	-2.55	9.83	22.21	30.19	34.58	38.62	46.96

TABLE 4.5. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

MAY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.31	-7.07	-6.19	-5.21	-3.45	-2.71	2.02	3.78	4.77	5.64	7.43
1	-15.15	-11.72	-10.05	-8.25	-4.96	-1.3	5.23	8.52	10.32	11.99	15.42
2	-17.22	-13.31	-11.42	-9.35	-5.62	-1.8	5.38	9.72	11.73	13.63	17.59
3	-17.74	-13.58	-11.56	-9.36	-5.37	-1.1	7.00	10.98	13.18	15.20	19.37
4	-18.59	-14.05	-11.36	-9.47	-5.14	1.53	8.31	12.64	15.03	17.22	21.75
5	-18.91	-14.10	-11.77	-9.22	-4.67	2.51	9.65	14.25	16.73	19.12	23.97
6	-20.02	-14.76	-12.21	-9.43	-4.37	7.43	11.25	16.23	19.05	21.61	26.83
7	-22.44	-16.38	-13.44	-10.25	-4.44	4.56	13.56	19.37	22.50	25.50	31.66
8	-23.49	-16.91	-13.73	-10.26	-3.96	5.30	15.56	21.86	25.32	28.51	35.03
9	-26.24	-18.82	-15.23	-11.31	-4.21	6.41	17.83	24.92	28.85	32.44	39.86
10	-30.27	-21.67	-17.51	-12.93	-4.75	8.00	20.75	28.98	33.51	37.67	46.26
11	-34.00	-24.25	-19.52	-14.35	-5.05	9.41	23.86	32.22	38.06	43.08	52.97
12	-37.09	-26.34	-21.13	-15.47	-5.18	10.77	25.72	37.01	42.07	47.87	59.62
13	-36.95	-26.09	-20.82	-15.10	-4.70	11.40	27.55	37.95	43.08	48.94	59.80
14	-31.61	-22.03	-17.39	-12.34	-3.17	11.05	25.27	34.46	39.50	44.14	53.72
15	-26.15	-18.32	-14.53	-10.40	-2.91	8.71	20.33	27.82	31.95	35.75	43.58
16	-21.87	-15.62	-12.60	-9.30	-3.32	5.95	15.23	21.21	24.50	27.53	37.73
17	-19.35	-14.31	-11.88	-9.23	-4.41	3.05	10.52	15.74	17.79	20.42	25.45
18	-17.26	-13.29	-11.36	-9.26	-5.45	4.5	6.36	10.17	12.26	14.19	14.17
19	-15.19	-12.08	-10.57	-8.92	-5.94	-1.32	3.31	6.29	7.94	9.45	12.56
20	-14.99	-12.19	-10.86	-9.41	-6.79	-2.71	1.37	4.00	5.44	6.73	7.52
21	-14.47	-12.04	-10.86	-9.58	-7.25	-3.64	-0.03	2.30	3.55	4.71	7.19
22	-15.04	-12.66	-11.51	-10.26	-7.98	-4.45	-0.93	1.35	2.60	3.75	6.13
23	-15.56	-13.17	-12.01	-10.74	-8.47	-4.89	-1.34	0.96	2.22	3.38	5.77
24	-16.35	-14.32	-13.04	-11.56	-9.14	-5.32	-1.32	1.21	2.59	3.75	6.50
25	-16.02	-15.20	-13.64	-12.35	-9.65	-5.46	-1.27	1.43	2.90	4.28	7.11
26	-19.04	-15.99	-14.52	-12.91	-9.99	-5.47	-0.94	1.98	3.59	5.06	9.11
27	-19.58	-16.38	-14.82	-13.14	-10.07	-5.31	-0.55	2.52	4.21	5.70	8.96
28	-20.67	-17.03	-15.27	-13.36	-9.88	-4.88	-0.81	4.39	6.30	8.06	11.70
29	-21.25	-17.33	-15.44	-13.37	-9.62	-3.81	2.00	5.75	7.82	9.72	13.63
30	-23.37	-18.94	-16.80	-14.46	-10.23	-1.66	2.92	7.15	9.49	11.63	16.06
31	-28.61	-18.24	-16.13	-13.83	-9.66	-3.18	3.29	7.47	9.77	11.88	16.24
32	-21.93	-17.53	-15.39	-13.07	-8.45	-2.31	4.22	8.44	10.76	12.90	17.30
33	-22.50	-17.99	-15.81	-13.43	-9.12	-2.42	4.27	8.59	10.96	13.15	17.66
34	-23.78	-19.04	-16.74	-14.23	-9.69	-2.85	4.40	8.94	11.45	13.75	18.49
35	-25.42	-20.46	-18.05	-15.44	-10.69	-3.32	4.05	8.80	11.41	13.62	18.78
36	-27.47	-22.26	-19.74	-17.00	-12.01	-4.28	3.44	8.43	11.17	13.69	18.90
37	-25.99	-20.86	-18.57	-16.08	-11.55	-4.83	2.49	7.02	9.51	11.81	16.54
38	-23.28	-19.04	-17.00	-14.78	-10.74	-4.49	1.76	5.79	8.01	10.05	14.26
39	-24.23	-19.95	-17.88	-15.62	-11.53	-5.18	1.17	5.27	7.52	9.59	13.87
40	-25.32	-21.11	-19.08	-16.86	-12.83	-6.58	-0.33	3.70	5.91	7.95	12.16
41	-27.24	-22.86	-20.74	-18.43	-14.23	-7.73	-1.23	2.97	5.28	7.40	11.78
42	-26.82	-24.10	-21.81	-19.33	-14.81	-7.81	-0.80	1.71	6.20	8.49	13.20
43	-31.61	-26.29	-23.71	-20.91	-15.81	-7.92	-0.02	5.08	7.88	10.46	15.78
44	-31.12	-26.01	-23.54	-20.85	-15.96	-8.37	-0.79	4.10	6.79	9.27	14.58
45	-31.38	-26.25	-23.78	-21.08	-16.18	-8.58	-0.98	3.92	6.62	9.10	14.22
46	-32.41	-27.16	-24.61	-21.84	-16.82	-9.02	-1.23	3.40	6.57	9.11	14.36
47	-33.86	-28.24	-25.52	-22.56	-17.17	-8.83	-1.46	4.90	7.86	10.58	16.21
48	-34.95	-29.28	-26.53	-23.54	-18.11	-9.69	-1.27	4.16	7.15	9.90	15.57
49	-36.61	-30.82	-28.01	-24.96	-19.42	-10.83	-2.24	3.30	6.36	9.16	14.95
50	-37.44	-31.51	-28.65	-25.52	-19.86	-11.07	-2.28	3.39	6.51	9.38	15.30
51	-38.66	-32.38	-29.35	-26.04	-20.03	-10.72	-1.41	4.59	7.90	10.94	17.21
52	-40.78	-34.06	-30.80	-27.26	-20.83	-10.45	-0.88	5.56	9.10	12.35	19.07
53	-40.40	-33.80	-30.60	-27.12	-20.80	-11.00	-1.20	5.12	8.60	11.80	18.40
54	-41.13	-34.24	-30.96	-27.34	-20.78	-10.61	-0.43	6.13	9.74	13.06	19.32
55	-42.58	-35.44	-32.04	-28.30	-21.50	-10.96	-0.42	6.38	10.12	13.56	20.66
56	-44.72	-37.14	-33.54	-29.56	-22.35	-11.17	0.01	7.22	11.19	14.84	22.38
57	-46.36	-38.35	-34.47	-30.24	-22.57	-10.68	1.22	8.89	13.11	16.99	25.01
58	-55.99	-46.19	-41.45	-36.29	-26.92	-12.38	2.16	11.53	16.69	21.43	31.23
59	-52.75	-43.61	-39.18	-34.37	-25.62	-12.06	1.51	10.25	15.07	19.49	28.63
60	-65.48	-53.41	-47.57	-41.21	-29.66	-11.75	6.17	17.72	24.08	29.92	41.99
61	-56.05	-47.57	-42.50	-36.97	-26.94	-11.39	4.16	14.19	19.71	24.79	35.26
62	-54.98	-45.11	-40.33	-35.13	-25.68	-11.03	3.62	13.07	18.27	23.05	32.92
63	-52.05	-42.76	-38.26	-33.36	-24.47	-10.68	3.10	11.99	16.89	21.39	30.68
64	-48.81	-40.17	-35.38	-31.43	-23.16	-10.33	2.50	10.77	15.32	19.51	28.15
65	-45.87	-37.81	-33.91	-29.66	-21.94	-9.98	1.99	9.70	13.95	17.85	25.92
66	-42.81	-35.35	-31.74	-27.81	-20.68	-9.62	1.45	8.58	12.51	16.12	23.57
67	-35.57	-32.77	-29.47	-25.88	-19.37	-9.26	0.84	7.56	10.94	14.24	21.05
68	-36.64	-30.42	-27.40	-24.12	-18.16	-8.92	0.33	6.29	9.57	12.58	18.81
69	-33.52	-27.91	-25.20	-22.24	-16.88	-8.56	-0.24	5.13	8.08	10.80	16.80
70	-30.47	-25.47	-23.05	-20.41	-15.62	-8.20	-0.78	4.01	6.64	9.06	14.06

TABLE 4.6. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

JUNE

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.81	-6.07	-5.27	-4.32	-3.65	-3.03	2.50	4.16	5.39	5.92	7.65
1	-13.36	-10.63	-8.42	-6.67	-5.49	-4.45	6.38	9.57	11.32	12.93	16.25
2	-12.97	-9.66	-8.05	-6.30	-5.12	-4.80	6.73	9.91	11.65	13.25	16.59
3	-12.22	-9.02	-7.46	-5.77	-4.70	-4.00	6.82	9.89	11.58	13.13	16.34
4	-12.44	-9.14	-7.55	-5.32	-4.66	-3.22	7.11	10.26	11.99	13.58	16.89
5	-12.82	-9.46	-7.83	-6.00	-4.84	-3.16	7.15	10.37	12.14	13.77	17.13
6	-12.39	-10.70	-9.91	-6.37	-4.44	-3.04	7.51	11.04	12.38	14.77	18.46
7	-16.18	-12.02	-10.61	-7.81	-5.83	-3.35	8.52	12.51	14.70	16.72	20.88
8	-18.35	-13.65	-11.73	-8.70	-6.41	-3.57	9.54	14.04	16.51	18.73	23.49
9	-21.54	-16.01	-13.32	-10.41	-7.12	-3.63	11.30	16.59	19.51	22.19	27.72
10	-25.70	-19.17	-16.00	-12.50	-8.31	-3.38	13.07	19.32	22.76	25.93	32.46
11	-25.20	-22.60	-18.92	-14.92	-9.64	-3.63	14.91	22.19	26.19	29.87	37.47
12	-35.22	-26.77	-22.42	-17.32	-10.35	-3.79	16.93	25.40	30.06	34.35	43.20
13	-37.82	-28.54	-24.05	-19.16	-10.20	-3.49	17.25	26.13	31.02	35.52	44.79
14	-34.36	-26.69	-22.69	-18.32	-10.33	-4.90	14.18	22.11	26.47	30.48	38.75
15	-28.89	-22.56	-19.41	-16.04	-9.92	-4.43	9.06	15.17	18.54	21.64	28.03
16	-22.80	-19.14	-15.83	-13.42	-8.96	-2.04	4.88	9.34	11.73	14.05	18.71
17	-18.58	-15.13	-13.46	-11.64	-8.34	-3.22	1.89	5.19	7.01	8.68	12.13
18	-15.60	-13.91	-12.61	-11.20	-8.63	-4.04	-0.65	1.92	3.34	4.64	7.32
19	-16.25	-13.87	-12.72	-11.46	-9.18	-5.65	-2.12	-1.16	1.42	2.57	4.95
20	-17.39	-15.01	-13.96	-12.01	-10.34	-6.82	-3.29	-1.02	-0.23	1.39	3.76
21	-17.11	-14.96	-13.92	-12.79	-10.74	-7.55	-4.37	-2.31	-1.18	-1.14	2.01
22	-13.34	-15.87	-14.82	-13.62	-11.60	-8.38	-5.16	-3.08	-1.34	-0.99	1.23
23	-19.16	-16.91	-15.82	-14.64	-12.49	-9.15	-5.81	-3.66	-2.42	-1.39	.86
24	-20.02	-17.70	-16.57	-15.35	-13.13	-9.68	-6.23	-4.01	-2.73	-1.67	.66
25	-21.21	-18.76	-17.58	-16.22	-13.94	-10.31	-6.68	-4.33	-3.04	-1.85	.59
26	-22.05	-19.44	-18.27	-16.93	-14.42	-10.60	-6.78	-4.32	-3.06	-1.72	.85
27	-22.14	-20.39	-19.06	-17.61	-14.98	-10.90	-6.82	-4.19	-2.74	-1.41	1.34
28	-23.68	-20.70	-19.26	-17.69	-14.83	-10.41	-5.99	-3.14	-1.57	-1.13	2.85
29	-22.87	-20.67	-18.72	-17.25	-14.87	-10.42	-6.27	-3.59	-2.12	-0.76	2.03
30	-22.88	-20.03	-18.65	-17.15	-14.43	-10.20	-5.97	-3.25	-1.75	-0.37	2.44
31	-24.20	-21.05	-19.52	-17.85	-14.83	-10.14	-5.45	-2.43	-0.77	-0.76	3.92
32	-25.88	-22.32	-20.60	-18.72	-15.31	-10.03	-4.75	-1.34	-0.54	2.26	5.82
33	-26.50	-22.92	-21.18	-19.29	-15.85	-10.53	-5.20	-1.77	-1.12	1.86	5.45
34	-29.68	-25.60	-23.62	-21.47	-17.57	-11.51	-5.46	-1.56	-0.59	2.57	6.65
35	-29.33	-25.90	-24.00	-21.93	-18.17	-12.34	-6.51	-2.75	-1.68	1.22	5.15
36	-29.44	-25.85	-24.12	-22.23	-18.79	-13.47	-8.15	-4.72	-2.83	-1.09	2.49
37	-30.46	-25.86	-25.11	-23.22	-19.77	-14.42	-9.08	-5.63	-3.73	-1.99	1.61
38	-31.87	-26.11	-26.28	-24.30	-20.69	-15.10	-9.51	-5.91	-3.92	-2.10	1.67
39	-34.25	-30.23	-28.28	-26.16	-22.30	-16.32	-10.34	-6.48	-4.36	-2.41	1.62
40	-33.72	-31.70	-29.76	-27.65	-23.80	-17.85	-11.89	-8.05	-5.93	-3.99	.03
41	-38.34	-34.57	-32.46	-30.15	-25.97	-19.49	-13.00	-8.82	-6.51	-4.40	-1.03
42	-38.01	-34.07	-32.17	-30.09	-26.33	-20.49	-14.65	-10.88	-8.81	-6.90	-2.97
43	-38.54	-34.75	-32.91	-30.91	-27.28	-21.65	-16.02	-12.39	-10.39	-8.56	-4.77
44	-38.56	-34.85	-33.05	-31.09	-27.54	-22.02	-16.51	-12.95	-11.00	-9.20	-5.48
45	-40.03	-35.02	-34.07	-31.96	-28.12	-22.16	-16.21	-12.37	-10.25	-8.31	-4.30
46	-42.20	-37.77	-35.63	-33.30	-29.07	-22.50	-15.94	-11.70	-9.37	-7.23	-2.81
47	-45.04	-40.07	-37.68	-35.04	-30.28	-22.90	-15.53	-10.77	-8.15	-5.74	-1.77
48	-46.05	-40.95	-38.48	-35.80	-30.92	-23.35	-15.78	-10.90	-8.22	-5.75	-1.65
49	-43.51	-43.72	-40.92	-37.86	-32.32	-23.73	-15.13	-9.59	-6.54	-3.73	2.06
50	-47.63	-42.03	-39.31	-36.36	-30.99	-22.67	-14.35	-8.99	-6.03	-3.32	2.28
51	-50.22	-44.10	-41.13	-37.90	-32.04	-22.95	-13.86	-8.00	-4.78	-1.81	4.31
52	-48.46	-42.94	-40.27	-37.36	-32.08	-23.89	-15.70	-10.41	-7.51	-4.83	.68
53	-43.78	-44.20	-41.49	-38.55	-33.20	-24.91	-16.62	-11.28	-8.33	-5.63	-1.05
54	-51.56	-45.83	-43.06	-40.04	-34.56	-26.07	-17.57	-12.09	-9.08	-6.30	-1.58
55	-55.32	-48.36	-45.59	-42.54	-36.46	-27.03	-17.60	-11.52	-8.17	-5.09	1.26
56	-55.86	-49.58	-46.54	-43.24	-37.23	-27.92	-18.61	-12.60	-9.29	-6.26	.02
57	-57.86	-50.79	-47.37	-43.64	-36.88	-26.39	-15.90	-9.13	-5.41	-1.99	5.08
58	-66.85	-58.02	-53.75	-49.09	-40.64	-27.54	-14.44	-5.99	-1.34	2.94	11.77
59	-63.88	-55.88	-51.90	-47.79	-40.33	-28.76	-17.14	-9.72	-5.61	-1.83	5.97
60	-75.65	-65.57	-60.69	-55.37	-45.72	-30.75	-15.79	-6.13	-1.82	4.06	14.15
61	-66.33	-58.20	-54.16	-49.77	-41.79	-29.42	-17.05	-9.08	-4.69	-1.65	7.68
62	-62.95	-55.12	-51.33	-47.20	-39.71	-28.09	-16.48	-8.98	-4.86	-1.07	6.76
63	-59.23	-51.98	-48.81	-44.57	-37.59	-26.76	-15.94	-8.96	-5.12	-1.59	5.70
64	-55.66	-48.87	-45.59	-42.01	-35.51	-25.44	-15.37	-8.87	-5.30	-2.01	4.77
65	-52.08	-45.80	-42.75	-39.44	-33.43	-24.11	-14.79	-8.78	-5.07	-2.43	3.85
66	-48.49	-42.71	-39.92	-36.87	-31.35	-22.78	-14.21	-8.68	-5.63	-2.84	2.94
67	-44.92	-39.65	-37.10	-34.32	-29.27	-21.45	-13.63	-8.59	-5.81	-3.26	2.01
68	-41.21	-36.48	-34.18	-31.69	-27.15	-20.12	-13.10	-8.56	-6.07	-3.77	.96
69	-37.84	-33.40	-31.36	-29.13	-25.08	-18.79	-12.51	-8.46	-6.23	-4.19	.08
70	-34.06	-30.34	-28.53	-26.57	-23.00	-17.47	-11.93	-8.37	-6.40	-4.60	-0.87

TABLE 4.7. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

JULY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-5.39	-4.03	-3.37	-2.65	-1.34	.68	2.70	4.01	4.72	5.39	6.75
1	-9.12	-6.47	-5.19	-3.79	-1.26	2.67	6.60	9.14	10.54	11.82	14.47
2	-10.15	-7.34	-5.92	-4.50	-1.91	2.36	6.53	9.22	10.70	12.06	14.37
3	-10.39	-7.54	-6.11	-4.66	-1.93	2.29	6.52	9.24	10.74	12.12	14.97
4	-10.97	-8.04	-6.61	-5.06	-2.25	2.11	6.48	9.23	10.84	12.26	15.25
5	-11.43	-8.50	-7.07	-5.52	-2.72	1.64	6.00	8.81	10.37	11.78	14.71
6	-12.40	-9.36	-7.90	-5.30	-3.40	1.10	5.60	8.50	10.10	11.57	14.60
7	-13.86	-10.65	-9.10	-7.41	-4.34	.42	5.18	8.25	9.84	11.40	14.69
8	-16.41	-12.77	-11.01	-9.09	-5.61	-.21	5.19	8.57	10.59	12.35	15.93
9	-20.75	-16.32	-14.18	-11.35	-7.61	-1.05	5.52	9.76	12.09	14.23	18.66
10	-24.76	-19.61	-17.11	-14.39	-9.45	-1.90	5.86	10.80	13.52	16.01	21.17
11	-28.89	-23.00	-20.17	-17.04	-11.41	-2.67	6.07	11.71	14.81	17.67	23.55
12	-32.62	-26.15	-23.02	-19.62	-13.43	-3.84	5.75	11.94	15.35	18.44	24.94
13	-35.45	-28.69	-25.42	-21.80	-15.39	-5.36	4.67	11.14	14.70	17.97	24.73
14	-38.00	-30.83	-27.34	-23.94	-17.08	-6.22	2.65	9.36	11.51	14.40	20.37
15	-40.91	-32.28	-28.04	-24.60	-18.17	-6.71	.56	4.99	7.43	9.67	14.29
16	-43.17	-33.73	-29.06	-25.25	-18.95	-5.95	-.74	2.55	4.26	6.03	9.47
17	-44.77	-34.98	-30.02	-25.72	-19.46	-6.00	-2.15	.34	1.71	2.97	5.57
18	-46.73	-36.12	-30.74	-26.07	-19.75	-6.76	-3.77	-1.84	.73	.20	2.21
19	-48.19	-37.15	-31.10	-26.15	-19.85	-7.41	-5.12	-3.18	-2.11	-1.12	.91
20	-49.21	-37.99	-31.22	-26.18	-19.88	-7.98	-6.63	-4.61	-3.49	-2.46	-.35
21	-50.00	-38.65	-31.28	-26.18	-19.88	-8.41	-8.04	-6.18	-5.16	-4.21	-2.27
22	-50.61	-39.14	-31.28	-26.18	-19.88	-8.83	-8.83	-6.90	-5.84	-4.86	-3.44
23	-51.00	-39.51	-31.28	-26.18	-19.88	-9.31	-9.31	-7.19	-6.03	-4.96	-3.76
24	-51.28	-39.77	-31.28	-26.18	-19.88	-9.79	-9.79	-7.67	-6.51	-5.44	-4.31
25	-51.47	-39.94	-31.28	-26.18	-19.88	-10.23	-10.23	-8.19	-7.07	-6.04	-4.81
26	-51.59	-39.99	-31.28	-26.18	-19.88	-10.70	-10.70	-8.68	-7.56	-6.54	-5.33
27	-51.67	-39.99	-31.28	-26.18	-19.88	-11.14	-11.14	-9.14	-8.00	-7.00	-5.80
28	-51.72	-39.99	-31.28	-26.18	-19.88	-11.57	-11.57	-9.59	-8.43	-7.43	-6.25
29	-51.75	-39.99	-31.28	-26.18	-19.88	-12.00	-12.00	-10.00	-8.86	-7.86	-6.70
30	-51.76	-39.99	-31.28	-26.18	-19.88	-12.41	-12.41	-10.41	-9.27	-8.27	-7.11
31	-51.76	-39.99	-31.28	-26.18	-19.88	-12.82	-12.82	-10.82	-9.68	-8.68	-7.56
32	-51.76	-39.99	-31.28	-26.18	-19.88	-13.23	-13.23	-11.23	-10.03	-9.03	-7.91
33	-51.76	-39.99	-31.28	-26.18	-19.88	-13.64	-13.64	-11.64	-10.44	-9.44	-8.31
34	-51.76	-39.99	-31.28	-26.18	-19.88	-14.05	-14.05	-12.05	-10.85	-9.85	-8.71
35	-51.76	-39.99	-31.28	-26.18	-19.88	-14.46	-14.46	-12.46	-11.26	-10.26	-9.11
36	-51.76	-39.99	-31.28	-26.18	-19.88	-14.87	-14.87	-12.87	-11.67	-10.67	-9.51
37	-51.76	-39.99	-31.28	-26.18	-19.88	-15.28	-15.28	-13.28	-12.08	-11.08	-9.91
38	-51.76	-39.99	-31.28	-26.18	-19.88	-15.69	-15.69	-13.69	-12.49	-11.49	-10.31
39	-51.76	-39.99	-31.28	-26.18	-19.88	-16.10	-16.10	-14.10	-12.90	-11.90	-10.71
40	-51.76	-39.99	-31.28	-26.18	-19.88	-16.51	-16.51	-14.51	-13.31	-12.31	-11.11
41	-51.76	-39.99	-31.28	-26.18	-19.88	-16.92	-16.92	-14.92	-13.72	-12.72	-11.51
42	-51.76	-39.99	-31.28	-26.18	-19.88	-17.33	-17.33	-15.33	-14.13	-13.13	-11.91
43	-51.76	-39.99	-31.28	-26.18	-19.88	-17.74	-17.74	-15.74	-14.54	-13.54	-12.31
44	-51.76	-39.99	-31.28	-26.18	-19.88	-18.15	-18.15	-16.15	-14.95	-13.95	-12.71
45	-51.76	-39.99	-31.28	-26.18	-19.88	-18.56	-18.56	-16.56	-15.36	-14.36	-13.11
46	-51.76	-39.99	-31.28	-26.18	-19.88	-18.97	-18.97	-16.97	-15.77	-14.77	-13.51
47	-51.76	-39.99	-31.28	-26.18	-19.88	-19.38	-19.38	-17.38	-16.18	-15.18	-13.91
48	-51.76	-39.99	-31.28	-26.18	-19.88	-19.79	-19.79	-17.79	-16.59	-15.59	-14.31
49	-51.76	-39.99	-31.28	-26.18	-19.88	-20.20	-20.20	-18.20	-17.00	-16.00	-14.71
50	-51.76	-39.99	-31.28	-26.18	-19.88	-20.61	-20.61	-18.61	-17.41	-16.41	-15.11
51	-51.76	-39.99	-31.28	-26.18	-19.88	-21.02	-21.02	-19.02	-17.82	-16.82	-15.51
52	-51.76	-39.99	-31.28	-26.18	-19.88	-21.43	-21.43	-19.43	-18.23	-17.23	-15.91
53	-51.76	-39.99	-31.28	-26.18	-19.88	-21.84	-21.84	-19.84	-18.64	-17.64	-16.31
54	-51.76	-39.99	-31.28	-26.18	-19.88	-22.25	-22.25	-20.25	-19.05	-18.05	-16.71
55	-51.76	-39.99	-31.28	-26.18	-19.88	-22.66	-22.66	-20.66	-19.46	-18.46	-17.11
56	-51.76	-39.99	-31.28	-26.18	-19.88	-23.07	-23.07	-21.07	-19.87	-18.87	-17.51
57	-51.76	-39.99	-31.28	-26.18	-19.88	-23.48	-23.48	-21.48	-20.28	-19.28	-17.91
58	-51.76	-39.99	-31.28	-26.18	-19.88	-23.89	-23.89	-21.89	-20.69	-19.69	-18.31
59	-51.76	-39.99	-31.28	-26.18	-19.88	-24.30	-24.30	-22.30	-21.10	-20.10	-18.71
60	-51.76	-39.99	-31.28	-26.18	-19.88	-24.71	-24.71	-22.71	-21.51	-20.51	-19.11
61	-51.76	-39.99	-31.28	-26.18	-19.88	-25.12	-25.12	-23.12	-21.92	-20.92	-19.51
62	-51.76	-39.99	-31.28	-26.18	-19.88	-25.53	-25.53	-23.53	-22.33	-21.33	-19.91
63	-51.76	-39.99	-31.28	-26.18	-19.88	-25.94	-25.94	-23.94	-22.74	-21.74	-20.31
64	-51.76	-39.99	-31.28	-26.18	-19.88	-26.35	-26.35	-24.35	-23.15	-22.15	-20.71
65	-51.76	-39.99	-31.28	-26.18	-19.88	-26.76	-26.76	-24.76	-23.56	-22.56	-21.11
66	-51.76	-39.99	-31.28	-26.18	-19.88	-27.17	-27.17	-25.17	-23.97	-22.97	-21.51
67	-51.76	-39.99	-31.28	-26.18	-19.88	-27.58	-27.58	-25.58	-24.38	-23.38	-21.91
68	-51.76	-39.99	-31.28	-26.18	-19.88	-27.99	-27.99	-25.99	-24.79	-23.79	-22.31
69	-51.76	-39.99	-31.28	-26.18	-19.88	-28.40	-28.40	-26.40	-25.20	-24.20	-22.71
70	-51.76	-39.99	-31.28	-26.18	-19.88	-28.81	-28.81	-26.81	-25.61	-24.61	-23.11

TABLE 4.8. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS

45 DEGREE FLIGHT AZIMUTH

AUGUST

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-6.47	-5.00	-4.20	-3.52	-2.11	.06	2.24	3.64	4.42	5.13	6.59
1	-11.18	-8.34	-6.95	-5.46	-2.75	1.47	5.69	8.41	9.95	11.28	14.12
2	-11.73	-8.78	-7.35	-5.79	-2.97	1.41	5.79	8.62	10.18	11.61	14.56
3	-12.00	-8.99	-7.51	-5.91	-3.02	1.48	5.97	8.97	10.46	11.93	14.96
4	-12.37	-9.23	-7.70	-6.05	-3.04	1.63	6.20	9.21	10.37	12.50	15.64
5	-13.50	-10.13	-8.49	-6.71	-3.48	1.53	6.55	9.78	10.56	13.19	16.57
6	-14.90	-11.74	-9.61	-7.74	-4.33	.96	6.25	9.06	11.54	13.26	16.82
7	-16.15	-12.40	-10.59	-8.62	-5.04	.52	6.07	9.65	11.62	13.44	17.15
8	-17.59	-13.67	-11.70	-9.69	-5.93	-.11	5.72	9.40	11.55	13.45	17.38
9	-20.20	-15.73	-13.65	-11.33	-7.10	-.55	6.00	10.22	12.55	14.69	19.10
10	-24.83	-19.46	-16.07	-14.04	-8.91	-.95	7.01	12.15	14.97	17.57	22.93
11	-28.37	-22.69	-19.60	-16.43	-10.51	-1.34	7.84	13.76	17.02	20.01	26.20
12	-32.58	-25.70	-22.39	-18.75	-12.17	-1.97	8.23	14.01	18.43	21.76	28.63
13	-33.90	-26.90	-23.61	-19.82	-13.11	-2.72	7.67	14.37	18.06	21.45	28.45
14	-30.72	-24.59	-21.62	-18.40	-12.52	-3.43	5.67	11.54	14.77	17.74	23.87
15	-23.32	-18.87	-16.70	-14.37	-10.11	-3.50	3.11	7.37	9.72	11.87	16.32
16	-18.31	-15.03	-13.45	-11.72	-8.58	-3.72	1.14	4.28	6.01	7.59	10.87
17	-16.06	-13.51	-12.27	-10.93	-8.48	-4.70	-.91	1.54	2.83	4.12	6.67
18	-15.31	-13.23	-12.22	-11.12	-9.12	-6.03	-2.94	-.94	.15	1.16	3.25
19	-17.27	-15.14	-14.11	-12.93	-10.95	-7.79	-4.62	-2.59	-1.46	-.43	1.70
20	-18.75	-16.66	-15.65	-14.56	-12.56	-9.47	-6.37	-4.38	-3.28	-2.27	-.19
21	-19.47	-17.49	-16.53	-15.40	-13.59	-10.64	-7.70	-5.80	-4.75	-3.79	-1.81
22	-20.30	-18.35	-17.41	-16.35	-14.52	-11.64	-8.75	-6.89	-5.87	-4.93	-2.98
23	-22.02	-19.83	-18.77	-17.52	-15.52	-12.28	-9.03	-6.93	-5.78	-4.72	-2.53
24	-23.05	-20.79	-19.69	-18.50	-16.33	-12.97	-9.61	-7.44	-6.25	-5.15	-2.89
25	-23.57	-21.45	-20.37	-19.20	-17.07	-13.76	-10.46	-8.32	-7.15	-6.07	-3.85
26	-24.81	-22.47	-21.34	-20.10	-17.86	-14.38	-10.91	-8.66	-7.43	-6.29	-3.95
27	-25.27	-22.77	-22.56	-21.74	-18.84	-15.13	-11.41	-9.01	-7.69	-6.48	-3.98
28	-25.64	-23.23	-22.05	-20.78	-18.47	-14.88	-11.29	-8.98	-7.70	-6.53	-4.11
29	-26.94	-24.40	-23.18	-21.84	-19.42	-15.66	-11.90	-9.47	-8.14	-6.91	-4.38
30	-26.74	-24.22	-23.00	-21.67	-19.26	-15.52	-11.78	-9.37	-8.04	-6.82	-4.30
31	-26.44	-25.51	-24.09	-22.54	-19.73	-15.38	-11.03	-8.22	-6.68	-5.26	-2.32
32	-28.11	-25.16	-23.73	-22.17	-19.34	-14.95	-10.56	-7.73	-6.17	-4.74	-1.78
33	-28.21	-25.24	-23.81	-22.24	-19.40	-15.00	-10.60	-7.76	-6.19	-4.76	-1.79
34	-30.69	-27.25	-25.58	-23.76	-20.46	-15.34	-10.22	-6.92	-5.11	-3.44	-.01
35	-33.15	-29.41	-27.60	-25.63	-22.05	-16.49	-10.94	-7.36	-5.39	-3.58	-.17
36	-35.42	-31.20	-29.16	-27.93	-22.89	-16.63	-10.37	-6.33	-4.10	-2.06	2.16
37	-37.65	-33.13	-30.94	-28.55	-24.22	-17.50	-10.79	-6.46	-4.07	-1.88	2.65
38	-36.66	-32.34	-30.24	-27.97	-23.83	-17.42	-11.01	-6.87	-4.59	-2.50	1.82
39	-37.47	-33.08	-30.95	-28.63	-24.43	-17.90	-11.38	-7.18	-4.86	-2.73	1.66
40	-39.12	-34.67	-32.51	-30.17	-25.91	-19.30	-12.69	-8.43	-6.09	-3.93	-.52
41	-39.27	-35.09	-33.06	-30.86	-26.86	-20.65	-14.44	-10.44	-8.24	-6.21	-2.03
42	-42.97	-38.09	-35.73	-33.17	-28.50	-21.27	-14.04	-9.37	-6.81	-4.45	.43
43	-47.04	-41.45	-38.75	-35.80	-30.45	-22.16	-13.86	-8.51	-5.56	-2.86	2.73
44	-49.70	-43.47	-40.46	-37.18	-31.22	-21.98	-12.74	-6.79	-3.51	-.49	5.73
45	-48.66	-42.76	-39.90	-36.79	-31.14	-22.39	-13.63	-7.98	-4.87	-2.02	3.88
46	-48.46	-42.48	-39.59	-36.44	-30.71	-21.83	-12.96	-7.23	-4.08	-1.19	4.79
47	-46.79	-41.10	-38.35	-35.35	-29.90	-21.46	-13.02	-7.57	-4.57	-1.82	3.87
48	-47.40	-41.52	-38.68	-35.58	-29.96	-21.24	-12.52	-6.90	-3.81	-.96	4.91
49	-48.44	-42.28	-39.30	-36.06	-30.17	-21.04	-11.91	-6.02	-2.77	.21	6.36
50	-51.57	-44.66	-41.32	-37.67	-31.06	-20.81	-10.55	-3.94	-.29	3.05	9.96
51	-52.75	-45.46	-41.93	-38.09	-31.11	-20.28	-9.46	-2.48	1.36	4.89	12.19
52	-54.77	-46.84	-43.00	-38.82	-31.23	-19.45	-7.68	-.09	4.09	7.93	15.86
53	-57.07	-48.34	-44.12	-39.52	-31.16	-18.20	-5.25	3.11	7.71	11.94	20.66
54	-60.94	-51.09	-46.32	-41.13	-31.70	-17.08	-2.46	6.97	12.16	16.93	26.78
55	-58.35	-48.80	-44.18	-39.15	-30.00	-15.83	-1.65	7.49	12.52	17.15	26.70
56	-59.99	-49.68	-44.69	-39.25	-29.38	-14.08	1.23	11.10	16.53	21.53	31.84
57	-60.63	-50.03	-44.89	-39.30	-29.15	-13.41	2.32	12.47	18.06	23.20	33.40
58	-60.63	-49.68	-44.37	-39.60	-28.11	-11.86	4.40	14.89	20.66	25.96	36.92
59	-59.14	-47.16	-41.35	-35.03	-23.56	-5.76	12.03	23.51	29.82	35.63	47.62
60	-55.95	-44.38	-38.77	-32.67	-21.59	-4.42	12.76	23.84	29.94	35.54	47.11
61	-55.90	-44.30	-38.69	-32.57	-21.48	-4.26	12.95	24.05	30.16	35.77	47.37
62	-52.65	-41.75	-36.47	-30.73	-20.29	-4.12	12.06	22.50	28.24	33.52	44.42
63	-49.32	-39.14	-34.20	-28.83	-19.08	-3.96	11.16	20.91	26.28	31.22	41.40
64	-46.11	-36.61	-32.01	-27.00	-17.91	-3.81	10.29	19.38	24.39	28.99	38.49
65	-43.33	-34.42	-30.10	-25.41	-16.88	-3.66	9.57	18.10	22.79	27.11	36.02
66	-40.42	-32.13	-28.12	-23.75	-15.81	-3.51	8.80	16.73	21.10	25.12	33.41
67	-37.72	-30.00	-26.27	-22.20	-14.81	-3.36	8.10	15.48	19.55	23.29	31.00
68	-35.27	-28.07	-24.58	-20.79	-13.89	-3.20	7.49	14.38	18.18	21.67	28.87
69	-33.23	-26.45	-23.17	-19.60	-13.11	-3.05	7.00	13.49	17.06	20.34	27.12
70	-31.46	-25.04	-21.94	-18.56	-12.42	-2.90	6.62	12.76	16.14	19.25	25.44

TABLE 4.9. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

SEPTEMBER

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.02	-8.85	-7.80	-6.65	-4.57	-1.35	1.87	3.95	5.09	6.15	8.32
1	-20.07	-15.82	-13.77	-11.53	-7.47	-1.17	5.12	9.18	11.42	13.48	17.72
2	-19.42	-15.09	-12.90	-10.71	-6.56	-1.13	6.29	10.44	12.72	14.32	19.15
3	-18.21	-13.99	-11.94	-9.71	-5.67	-1.01	6.88	10.93	13.16	15.20	19.43
4	-17.86	-13.62	-11.57	-9.34	-5.23	-1.01	7.30	11.36	13.59	15.64	19.83
5	-18.78	-14.33	-12.17	-9.82	-5.56	-1.05	7.65	11.92	14.26	16.42	20.87
6	-19.53	-14.91	-12.69	-10.25	-5.83	-1.01	7.86	12.27	14.70	16.94	21.57
7	-21.14	-16.10	-13.66	-11.00	-6.18	-1.30	8.78	13.01	16.26	18.70	23.74
8	-23.25	-17.67	-14.96	-12.02	-6.67	-1.63	9.92	15.27	18.21	20.92	26.51
9	-24.88	-18.78	-15.83	-12.61	-6.77	-2.28	11.34	17.18	20.40	23.35	29.45
10	-27.58	-20.78	-17.43	-13.49	-7.37	-2.73	12.83	19.35	22.34	26.24	33.04
11	-30.43	-22.91	-19.27	-15.31	-8.12	-3.03	14.19	21.38	25.34	28.98	36.44
12	-32.06	-24.10	-20.25	-16.06	-8.44	-3.37	15.17	22.79	26.38	30.42	39.79
13	-33.59	-25.36	-21.37	-17.03	-9.15	-3.06	15.28	23.16	27.50	31.48	39.71
14	-31.86	-24.31	-20.65	-16.67	-9.44	-1.77	12.98	20.21	24.13	27.34	35.40
15	-26.51	-20.51	-17.60	-14.44	-8.70	-2.1	9.12	14.87	18.03	20.94	26.94
16	-22.08	-17.41	-15.14	-12.63	-8.21	-1.27	5.66	10.14	12.60	14.36	19.53
17	-17.73	-14.22	-12.53	-10.68	-7.32	-2.12	3.08	6.44	8.28	9.98	17.48
18	-15.23	-13.32	-11.91	-10.39	-7.59	-3.27	1.04	3.83	5.36	6.77	9.61
19	-15.97	-13.46	-12.24	-10.92	-8.51	-4.78	-1.05	1.36	2.68	3.90	6.41
20	-16.56	-14.21	-13.07	-11.82	-9.57	-6.07	-2.58	-3.32	.92	2.06	4.41
21	-16.62	-14.46	-13.42	-12.29	-10.22	-7.03	-3.33	-1.77	-1.04	.41	2.55
22	-17.04	-14.99	-14.00	-12.92	-10.96	-7.92	-4.88	-2.92	-1.84	-.84	1.20
23	-18.07	-15.93	-14.89	-13.76	-11.71	-8.53	-5.36	-3.31	-2.13	-1.14	1.00
24	-19.19	-16.92	-15.81	-14.61	-12.44	-9.06	-5.68	-3.50	-2.30	-1.20	1.08
25	-20.81	-18.06	-16.88	-15.59	-13.25	-9.62	-5.98	-3.64	-2.35	-1.17	1.24
26	-21.61	-19.00	-17.74	-16.36	-13.86	-9.98	-6.11	-3.61	-2.23	-.87	1.64
27	-22.78	-19.95	-18.22	-16.78	-14.16	-10.10	-6.04	-3.42	-1.97	-.65	2.09
28	-23.09	-19.97	-18.46	-16.81	-13.83	-9.20	-4.56	-1.58	.07	1.58	4.70
29	-23.37	-20.21	-18.68	-17.01	-13.98	-9.29	-4.60	-1.57	.10	1.63	4.74
30	-22.80	-19.16	-17.68	-16.08	-13.16	-8.64	-4.12	-1.21	.40	1.87	4.92
31	-22.57	-19.26	-17.65	-15.91	-12.74	-7.82	-2.91	.26	2.01	3.61	6.92
32	-22.64	-19.22	-17.56	-15.75	-12.48	-7.40	-2.32	.96	2.76	4.42	7.84
33	-23.15	-19.49	-17.72	-15.79	-12.29	-6.86	-1.43	2.07	3.99	5.76	9.42
34	-22.95	-19.23	-17.42	-15.45	-11.89	-6.35	-.82	2.75	4.72	6.52	10.25
35	-24.01	-19.98	-18.03	-15.90	-12.04	-6.06	-.08	2.78	5.91	7.86	11.84
36	-23.82	-19.55	-17.67	-15.63	-11.92	-6.17	-.42	3.29	5.33	7.21	11.09
37	-26.21	-21.77	-19.63	-17.29	-13.05	-6.48	-.10	4.34	6.68	8.82	13.25
38	-27.05	-22.55	-20.37	-18.00	-13.69	-7.02	-.34	3.97	6.34	8.52	13.02
39	-26.63	-22.20	-20.05	-17.72	-13.48	-6.90	-.32	3.92	6.25	8.40	12.83
40	-26.48	-23.59	-21.22	-18.64	-13.96	-6.70	.56	5.24	7.82	10.19	15.09
41	-32.15	-26.51	-23.78	-20.80	-15.40	-7.03	1.35	6.75	9.72	12.45	18.09
42	-33.38	-27.64	-24.86	-21.84	-16.34	-7.82	.69	6.19	9.21	11.99	17.73
43	-37.14	-30.71	-27.59	-24.20	-18.04	-8.49	1.06	7.22	10.61	13.73	20.16
44	-34.00	-27.95	-25.02	-21.84	-16.05	-7.08	1.89	7.68	10.87	13.79	19.84
45	-29.72	-24.32	-21.71	-18.86	-13.70	-5.69	2.32	7.48	10.33	12.94	18.33
46	-28.49	-22.98	-20.32	-17.41	-12.14	-3.96	4.22	9.49	12.40	15.07	20.58
47	-27.73	-22.20	-19.53	-16.61	-11.32	-3.12	5.09	10.38	13.29	15.97	21.50
48	-27.75	-22.22	-19.55	-16.63	-11.34	-3.14	5.06	10.35	13.26	15.94	21.46
49	-27.13	-21.46	-18.71	-15.72	-10.29	-1.87	6.56	11.99	14.98	17.73	23.40
50	-26.91	-20.92	-18.03	-14.87	-9.14	-.25	8.63	14.36	17.52	20.42	26.41
51	-30.89	-24.06	-20.75	-17.15	-10.61	-.47	9.67	16.21	19.82	23.12	29.96
52	-31.53	-24.64	-21.30	-17.67	-11.07	-.84	9.39	15.99	19.62	22.96	29.85
53	-32.48	-25.04	-21.44	-17.51	-10.39	.66	11.71	18.83	22.76	26.36	33.81
54	-31.99	-24.21	-20.44	-16.34	-8.89	2.66	14.21	21.66	25.76	29.53	37.32
55	-31.90	-24.00	-20.17	-16.00	-8.44	3.29	15.03	22.59	26.76	30.59	38.49
56	-29.85	-22.37	-18.74	-14.79	-7.63	3.49	14.60	21.77	25.72	29.34	36.83
57	-25.36	-18.66	-15.42	-11.89	-5.47	4.47	14.42	20.83	24.36	27.61	34.31
58	-19.80	-13.39	-10.28	-6.90	-.75	8.77	18.29	24.44	27.82	30.93	37.34
59	-20.40	-13.90	-10.75	-7.33	-1.11	8.54	18.19	24.41	27.83	30.98	37.48
60	-31.89	-22.74	-18.31	-13.49	-4.73	8.86	22.44	31.20	36.03	40.46	49.61
61	-32.15	-23.04	-18.62	-13.80	-5.04	8.53	22.10	30.85	35.67	40.10	49.24
62	-31.58	-22.65	-18.32	-13.62	-5.07	8.19	21.44	29.99	34.70	39.02	47.95
63	-31.24	-22.46	-18.21	-13.58	-5.18	7.86	20.89	29.29	33.92	38.18	46.86
64	-30.63	-22.07	-17.92	-13.40	-5.20	7.52	20.23	28.43	32.95	37.10	45.67
65	-30.20	-21.81	-17.74	-13.31	-5.27	7.19	19.66	27.70	32.12	36.19	44.59
66	-29.78	-21.55	-17.57	-13.23	-5.35	6.86	19.07	26.95	31.29	35.27	43.50
67	-29.17	-21.16	-17.28	-13.05	-5.38	6.52	18.42	26.09	30.31	34.20	42.21
68	-28.84	-20.97	-17.16	-13.02	-5.49	6.19	17.86	25.39	29.54	33.35	41.21
69	-28.23	-20.58	-16.87	-12.84	-5.51	5.85	17.21	24.53	28.57	32.27	39.92
70	-27.81	-20.32	-16.70	-12.75	-5.59	5.52	16.62	23.79	27.73	31.35	39.84

TABLE 4.10. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

OCTOBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.38	-8.96	-7.93	-6.91	-4.77	-1.62	1.54	3.57	4.69	5.72	7.85
1	-20.36	-16.26	-14.28	-12.12	-8.19	-2.11	3.98	7.90	10.00	12.05	16.15
2	-18.29	-14.10	-12.07	-9.37	-5.86	-1.35	6.57	10.58	12.78	14.91	19.00
3	-16.72	-12.51	-10.46	-8.26	-4.24	1.99	8.23	12.25	14.47	16.50	20.70
4	-15.16	-11.79	-9.69	-7.38	-3.20	3.28	9.76	13.94	15.24	17.35	22.72
5	-17.27	-12.39	-10.02	-7.45	-2.78	4.47	11.72	16.39	18.36	21.33	26.21
6	-18.28	-12.87	-10.25	-7.40	-2.22	5.81	13.33	19.01	21.36	24.42	29.89
7	-20.00	-13.88	-10.92	-7.69	-1.83	7.25	16.34	22.20	25.43	28.39	34.51
8	-21.46	-14.61	-11.30	-7.69	-1.14	9.02	19.18	25.74	29.34	32.66	39.51
9	-24.22	-16.34	-12.52	-8.37	-0.82	10.87	22.56	30.11	34.26	38.02	45.96
10	-27.36	-18.37	-14.01	-9.27	-0.67	12.68	26.02	34.63	39.37	43.72	52.71
11	-29.64	-19.80	-15.02	-9.84	-0.41	14.26	28.81	38.24	43.43	48.19	58.04
12	-30.28	-20.09	-15.16	-9.70	-0.04	15.03	30.19	39.94	45.31	50.24	60.43
13	-28.66	-18.83	-14.15	-9.06	-0.10	14.53	28.87	38.12	43.22	47.90	57.56
14	-24.39	-16.02	-11.93	-7.53	-0.42	12.92	25.22	33.22	37.62	41.66	50.22
15	-19.85	-13.01	-9.70	-6.05	-0.45	10.61	20.76	27.31	30.81	34.22	41.06
16	-16.91	-11.42	-8.76	-5.36	-0.61	7.54	15.70	20.95	23.85	26.51	32.00
17	-15.06	-10.64	-8.50	-5.17	-1.25	4.61	11.17	15.93	17.72	19.86	24.28
18	-14.47	-10.81	-9.04	-7.11	-3.61	1.82	7.26	10.76	12.63	14.46	18.12
19	-14.06	-10.96	-9.47	-7.84	-4.87	-0.28	4.31	7.27	8.50	10.40	13.49
20	-13.31	-11.04	-9.60	-8.27	-5.58	-1.46	2.65	5.30	6.77	8.11	10.88
21	-13.94	-11.32	-10.05	-8.67	-6.16	-2.27	1.62	4.12	5.51	6.78	9.40
22	-13.92	-11.36	-10.16	-8.87	-6.51	-2.86	0.80	3.15	4.45	5.64	8.10
23	-14.80	-12.18	-10.91	-9.53	-7.02	-3.13	0.76	3.27	4.65	5.92	8.54
24	-15.19	-12.46	-11.13	-9.69	-7.07	-3.01	1.06	3.68	5.12	6.45	9.14
25	-15.60	-12.71	-11.31	-9.79	-7.03	-2.74	1.54	4.30	5.83	7.22	10.11
26	-16.88	-13.61	-12.02	-10.30	-7.17	-2.31	2.54	5.67	7.40	8.98	12.25
27	-17.37	-13.87	-12.17	-10.32	-6.97	-1.77	3.43	6.79	8.63	10.33	13.83
28	-16.06	-12.42	-10.66	-8.74	-5.26	-1.15	5.55	9.03	10.95	12.72	16.36
29	-17.13	-13.04	-11.06	-8.91	-4.99	1.07	7.14	11.06	13.21	15.19	19.28
30	-17.62	-13.18	-11.03	-8.69	-4.43	2.16	8.76	13.01	15.35	17.50	21.95
31	-17.81	-13.06	-10.76	-8.26	-3.72	3.33	10.37	14.92	17.42	19.72	24.46
32	-17.61	-12.53	-10.06	-7.39	-2.52	5.02	12.56	17.43	20.10	22.56	27.65
33	-17.97	-12.39	-9.69	-6.75	-1.41	6.87	15.14	20.48	23.42	26.12	31.70
34	-17.73	-11.89	-9.06	-5.98	-0.39	8.28	16.95	22.54	25.62	28.45	34.29
35	-22.22	-15.17	-11.76	-8.05	-1.31	9.14	19.59	26.33	30.04	33.45	40.49
36	-25.07	-17.24	-13.44	-9.31	-1.81	9.82	21.45	28.95	33.08	36.87	44.71
37	-27.12	-18.57	-14.43	-9.93	-1.75	10.94	23.62	31.80	36.31	40.45	48.99
38	-28.79	-19.56	-15.09	-10.23	-1.39	12.30	26.00	34.83	39.69	44.16	53.39
39	-27.27	-17.81	-13.22	-8.24	-0.82	14.87	28.92	37.98	42.97	47.55	57.02
40	-25.56	-15.99	-11.36	-6.32	2.84	17.04	31.25	40.40	45.45	50.08	59.65
41	-24.68	-15.10	-10.46	-5.41	3.76	17.98	32.20	41.37	46.42	51.06	60.64
42	-26.13	-15.87	-10.90	-5.49	4.32	19.55	34.78	44.59	50.00	54.97	65.23
43	-25.11	-14.92	-9.98	-4.61	5.15	20.28	35.41	45.16	50.53	55.47	65.66
44	-24.69	-14.22	-9.15	-3.63	6.40	21.95	37.49	47.52	53.04	58.11	68.59
45	-24.27	-13.46	-8.23	-2.53	7.82	23.87	39.91	50.26	55.96	61.20	72.01
46	-23.28	-12.29	-6.97	-1.18	9.34	25.65	41.96	52.48	58.27	63.59	74.59
47	-22.60	-11.39	-5.96	-0.06	10.67	27.31	43.94	54.67	60.58	66.01	77.21
48	-21.43	-10.06	-4.55	1.45	12.33	29.22	46.10	56.99	62.98	68.49	79.86
49	-23.15	-10.98	-5.08	1.33	12.99	31.05	49.12	60.77	67.19	73.09	85.26
50	-21.75	-9.60	-3.71	2.69	14.32	32.36	50.39	62.03	68.43	74.31	86.47
51	-22.73	-10.33	-4.33	2.21	14.08	32.49	50.90	62.77	69.31	75.31	87.71
52	-20.17	-7.90	-1.36	4.50	16.24	34.44	52.65	64.39	70.35	76.79	89.05
53	-17.34	-5.62	0.05	6.22	17.43	34.82	52.21	63.42	69.59	75.27	86.98
54	-15.65	-4.11	1.43	7.56	18.60	35.73	52.85	63.90	69.98	75.57	87.10
55	-17.17	-5.48	0.18	6.34	17.52	34.86	52.21	63.39	69.55	75.21	86.89
56	-18.76	-6.81	-1.02	5.28	16.73	34.47	52.21	63.65	69.95	75.74	87.69
57	-20.16	-7.92	-1.99	4.46	16.18	34.34	52.51	64.23	70.68	76.61	88.85
58	-21.24	-9.04	-3.13	3.30	14.98	33.09	51.20	62.88	69.32	75.23	87.43
59	-18.63	-7.11	-1.53	4.54	15.56	32.66	49.75	60.78	66.85	72.43	83.94
60	-22.51	-10.73	-5.02	1.19	12.48	29.97	47.47	58.75	64.96	70.67	82.46
61	-21.80	-10.46	-4.97	1.00	11.85	28.67	45.50	56.35	62.32	67.81	79.14
62	-22.16	-11.04	-5.65	0.21	10.86	27.37	43.87	54.52	60.38	65.77	76.89
63	-22.22	-11.38	-6.12	-0.41	9.97	26.07	42.17	52.55	58.27	63.52	74.36
64	-22.49	-11.88	-6.74	-1.14	9.02	24.77	40.52	50.68	56.28	61.42	72.03
65	-22.85	-12.45	-7.41	-1.93	8.03	23.48	38.92	48.88	54.36	59.40	69.81
66	-23.15	-12.97	-8.05	-2.68	7.06	22.17	37.27	47.02	52.38	57.31	67.49
67	-23.45	-13.49	-8.67	-3.43	6.10	20.87	35.65	45.17	50.42	55.24	65.19
68	-23.56	-13.88	-9.18	-4.08	5.19	19.57	33.95	43.22	48.33	53.02	62.71
69	-23.96	-14.48	-9.88	-4.88	4.19	18.27	32.35	41.43	46.43	51.02	60.81
70	-24.30	-15.03	-10.54	-5.66	3.21	16.97	30.73	39.60	44.48	48.97	58.20

TABLE 4.11. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

NOVEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.95	-7.14	-6.57	-6.32	-6.00	-5.91	1.78	3.51	4.46	5.33	7.14
1	-20.64	-16.18	-14.00	-11.57	-7.40	-7.73	5.84	10.11	12.45	14.62	19.09
2	-19.20	-14.57	-12.27	-9.28	-5.45	1.43	9.31	12.74	15.19	17.42	22.08
3	-18.12	-13.32	-11.00	-8.47	-5.33	3.25	10.37	14.36	17.49	19.31	24.61
4	-17.86	-12.78	-10.31	-7.60	-5.06	4.79	12.05	17.23	20.30	22.36	27.45
5	-18.78	-13.08	-10.32	-7.32	-4.37	6.50	15.07	20.50	23.50	25.26	31.36
6	-20.37	-13.88	-10.74	-7.32	-3.11	8.53	19.10	24.37	27.77	30.94	37.43
7	-21.54	-14.35	-10.37	-7.03	-2.20	10.47	21.14	26.03	31.32	35.30	42.43
8	-23.76	-15.65	-11.72	-7.45	-1.31	12.35	24.39	29.14	33.42	38.34	48.45
9	-25.32	-17.15	-12.71	-7.87	-0.31	14.52	28.14	32.32	37.76	43.20	55.37
10	-30.24	-19.76	-14.65	-7.15	0.88	16.45	32.01	42.05	47.58	52.67	63.14
11	-32.09	-20.79	-15.70	-6.34	1.43	18.20	35.00	45.97	51.53	57.31	64.61
12	-33.02	-21.22	-16.51	-5.70	2.01	19.51	37.12	48.21	54.57	60.24	70.53
13	-28.37	-17.56	-12.37	-5.00	2.72	19.77	35.32	46.17	51.37	57.10	67.92
14	-23.14	-13.84	-9.24	-4.44	3.40	20.26	32.10	40.95	45.05	50.35	59.67
15	-18.03	-10.44	-6.75	-3.70	4.51	15.78	27.05	34.32	38.33	42.27	43.67
16	-15.01	-8.78	-5.77	-3.40	5.47	10.71	21.06	27.92	31.20	34.21	40.44
17	-13.16	-8.09	-5.63	-2.36	6.30	9.43	18.36	21.32	24.50	26.35	32.27
18	-12.45	-8.26	-6.02	-4.03	7.02	8.19	12.41	16.42	18.62	20.65	24.84
19	-11.82	-8.26	-5.57	-4.60	7.44	4.04	9.37	12.74	14.67	16.37	19.31
20	-11.75	-8.51	-6.64	-5.24	7.40	2.67	7.40	10.58	12.25	13.87	17.10
21	-12.75	-9.39	-7.75	-6.30	7.24	2.24	7.24	10.46	12.24	13.87	17.24
22	-13.33	-9.81	-8.11	-6.26	7.23	2.33	7.54	10.51	12.76	14.46	17.98
23	-13.26	-9.62	-7.92	-6.34	7.45	2.44	7.74	11.33	13.74	15.51	19.15
24	-13.43	-9.57	-7.70	-6.67	7.37	2.75	7.49	13.28	15.21	17.08	20.94
25	-14.73	-10.76	-8.24	-6.33	7.75	4.74	11.24	15.42	17.73	19.34	24.22
26	-14.66	-10.47	-7.84	-6.40	7.78	5.78	12.59	16.58	19.40	21.61	26.21
27	-14.50	-9.63	-7.27	-6.71	7.05	7.13	14.40	19.06	21.63	23.39	29.35
28	-9.21	-8.61	-2.39	0.44	11.27	18.10	22.50	22.50	24.92	27.15	31.75
29	-8.71	-8.35	-2.05	0.67	5.60	13.25	20.91	25.84	28.56	31.06	36.21
30	-9.38	-8.84	-1.16	1.76	7.06	15.28	23.50	28.61	31.73	34.41	39.95
31	-8.70	-8.91	-0.10	2.96	8.50	17.11	25.71	31.26	34.31	37.12	42.91
32	-8.08	-1.98	0.98	4.19	10.03	19.09	28.14	33.98	37.20	40.15	46.25
33	-7.52	-0.97	2.20	5.65	11.92	21.64	31.36	37.63	41.08	44.25	50.80
34	-6.86	0.02	3.36	6.98	13.57	23.79	34.00	40.59	44.22	47.55	54.43
35	-6.13	-0.61	3.03	6.99	14.18	25.33	36.49	43.68	47.64	51.28	58.79
36	-7.74	-1.14	3.54	7.55	14.83	26.11	37.39	44.67	48.68	52.36	59.96
37	-6.90	-0.91	4.70	8.82	15.30	27.91	39.51	46.99	51.11	54.90	62.71
38	-7.81	-0.64	4.73	9.18	17.27	29.81	42.35	50.44	54.89	58.98	67.43
39	-5.06	3.29	7.38	11.73	19.72	32.12	44.51	52.50	56.90	60.95	69.29
40	-3.32	5.36	9.07	13.54	21.66	34.26	46.85	54.97	59.44	63.55	72.03
41	-3.52	5.26	9.51	14.14	22.55	35.59	48.63	57.03	61.66	65.92	74.70
42	-2.35	6.66	11.02	15.77	24.39	37.76	51.13	59.75	64.50	68.86	77.67
43	-2.06	7.58	12.24	17.32	26.55	40.85	55.16	64.38	69.46	74.13	83.76
44	-1.46	8.96	14.01	19.50	29.48	44.95	60.42	70.39	75.88	80.93	91.35
45	0.01	10.93	16.22	21.97	32.42	48.63	64.84	75.29	81.04	86.33	97.25
46	-1.94	10.02	15.82	22.12	33.58	51.33	69.09	80.54	86.85	92.64	104.61
47	0.67	12.95	18.60	25.37	37.12	55.34	73.57	85.32	91.79	97.74	110.02
48	2.79	15.15	21.13	27.64	39.47	57.81	76.14	87.97	94.48	100.46	112.82
49	4.38	16.78	22.78	29.31	41.18	59.58	77.98	89.85	96.38	102.39	114.79
50	4.97	17.48	23.54	30.14	42.12	60.69	79.27	91.25	97.84	103.90	116.42
51	5.91	18.13	24.06	30.50	42.21	60.36	78.51	90.22	96.66	102.58	114.81
52	5.97	18.23	24.17	30.63	42.37	60.57	78.77	90.50	96.97	102.91	115.17
53	4.40	17.07	23.21	29.89	42.02	60.82	79.63	91.76	98.44	104.58	117.25
54	7.78	14.58	21.27	28.54	41.76	62.25	82.74	95.95	103.23	109.91	123.72
55	1.24	14.64	21.14	28.20	41.04	60.94	80.84	93.67	100.74	107.23	120.64
56	3.38	13.82	20.33	27.42	40.29	60.24	80.20	93.07	100.15	106.66	120.11
57	3.03	16.04	22.34	29.20	41.65	60.96	80.27	92.73	99.58	105.88	118.89
58	8.24	20.20	25.98	32.28	43.73	61.47	79.21	90.65	96.95	102.74	114.70
59	11.98	23.61	29.24	35.38	46.51	63.78	81.05	92.19	98.32	103.96	115.59
60	11.77	23.69	29.46	35.74	47.15	64.83	82.52	93.93	100.21	105.98	117.89
61	13.63	24.76	30.15	36.02	46.67	63.19	79.72	90.37	96.24	101.63	112.76
62	12.88	23.81	29.11	34.87	45.33	61.55	77.78	88.24	94.00	99.29	110.22
63	12.13	22.86	28.06	33.72	43.99	59.91	75.84	86.11	91.77	96.96	107.69
64	11.39	21.92	27.02	32.57	42.64	58.27	73.90	83.98	89.53	94.63	105.16
65	10.52	20.87	25.89	31.35	41.27	56.64	72.01	81.93	87.39	92.40	102.76
66	9.94	20.06	24.96	30.23	39.98	55.00	70.02	79.71	85.04	89.94	100.06
67	9.19	19.11	23.31	29.14	38.64	53.36	68.08	77.58	82.80	87.61	97.53
68	8.44	18.16	22.87	27.99	37.29	51.72	66.14	75.45	80.57	85.28	94.99
69	7.69	17.21	21.82	26.84	35.95	50.08	64.21	73.32	78.33	82.94	92.46
70	6.94	16.26	20.77	25.69	34.61	48.44	62.27	71.19	76.10	80.61	89.93

TABLE 4.12. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH
DECEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.90	-6.20	-5.38	-4.49	-2.87	-1.35	2.16	3.70	4.68	5.50	7.19
1	-18.29	-13.97	-11.30	-9.61	-5.97	-3.33	7.34	11.47	13.75	15.84	20.15
2	-16.13	-11.67	-9.61	-7.16	-2.88	7.74	10.27	14.64	16.99	19.15	23.62
3	-15.45	-10.62	-8.22	-5.74	-1.12	6.05	13.21	17.33	20.37	22.71	27.54
4	-15.76	-10.28	-7.61	-4.73	.51	8.65	16.78	22.03	24.82	27.57	33.05
5	-16.73	-10.43	-7.48	-4.15	1.93	11.12	20.40	26.33	29.63	32.71	38.97
6	-17.18	-10.32	-6.58	-3.37	3.20	13.35	23.57	30.15	33.76	37.09	43.95
7	-18.50	-10.40	-7.07	-3.01	4.37	15.30	27.24	34.61	38.68	42.41	50.11
8	-20.90	-12.09	-7.83	-3.18	5.25	18.32	31.39	39.83	44.47	48.73	57.54
9	-23.70	-13.67	-8.32	-3.53	6.05	20.94	35.93	45.42	50.71	55.56	65.59
10	-26.15	-15.05	-9.07	-3.82	6.81	23.29	39.76	50.29	56.24	61.62	72.72
11	-26.68	-15.06	-9.42	-3.31	7.82	25.07	42.32	53.44	59.57	65.19	76.82
12	-25.52	-13.70	-7.92	-1.76	8.55	27.08	44.61	55.92	62.15	67.87	79.68
13	-21.43	-10.41	-5.05	.73	11.33	27.31	44.24	54.94	60.67	66.07	77.10
14	-16.65	-6.94	-2.24	3.92	17.16	26.55	41.00	50.29	55.41	60.11	69.82
15	-13.00	-4.72	-.71	3.60	11.59	23.93	35.13	44.11	48.43	52.49	60.78
16	-11.00	-3.93	-.51	3.22	9.93	20.47	30.90	37.73	41.45	44.97	51.94
17	-11.33	-5.09	-2.05	1.27	7.29	15.62	25.93	31.37	35.29	38.32	44.61
18	-11.14	-5.42	-3.25	-.44	4.64	12.54	20.47	25.62	28.52	30.90	36.21
19	-12.55	-7.73	-5.41	-2.97	1.53	3.65	15.71	20.27	22.73	25.08	29.84
20	-12.40	-8.18	-6.14	-3.92	.11	6.30	12.62	16.65	18.67	20.91	25.12
21	-13.24	-9.02	-6.97	-4.75	-.70	5.56	11.83	15.88	18.10	20.15	24.37
22	-12.77	-8.42	-6.71	-4.42	-.05	5.20	11.06	14.84	16.92	18.83	22.78
23	-12.65	-8.50	-6.48	-4.30	-.32	5.35	12.02	15.93	18.18	20.19	24.35
24	-13.07	-8.50	-6.28	-3.87	.50	7.29	14.03	18.48	20.86	23.08	27.65
25	-13.36	-8.79	-6.34	-3.67	1.17	4.63	15.21	21.05	23.72	26.17	31.24
26	-14.49	-9.03	-6.38	-3.50	1.73	9.84	17.95	23.19	26.07	28.71	34.18
27	-15.10	-9.75	-6.42	-3.34	2.26	10.34	19.62	25.22	28.30	31.13	36.98
28	-16.09	-11.42	-6.19	-4.68	1.71	11.61	21.51	27.89	31.41	34.64	41.31
29	-16.83	-12.49	-6.94	-5.07	1.95	12.84	23.72	30.74	34.61	38.16	45.80
30	-16.74	-11.08	-7.37	-3.33	4.00	15.37	26.74	34.08	38.11	41.82	49.49
31	-19.25	-11.00	-7.00	-2.65	5.25	17.50	29.75	37.65	42.00	46.00	54.25
32	-19.07	-10.49	-6.34	-1.81	6.40	19.13	31.87	40.08	44.60	48.76	57.34
33	-24.71	-14.53	-9.60	-4.23	5.51	20.62	35.74	45.48	50.85	55.78	65.96
34	-26.02	-15.28	-10.08	-4.43	5.85	21.78	37.71	47.98	53.64	58.84	69.57
35	-29.29	-17.85	-12.31	-6.28	4.67	21.66	38.64	49.59	55.62	61.16	72.60
36	-30.94	-19.07	-13.33	-7.07	4.29	21.90	39.51	50.87	57.12	62.87	74.73
37	-33.82	-21.23	-15.13	-8.49	3.57	22.26	40.95	53.01	59.65	65.75	78.34
38	-37.21	-23.82	-17.33	-10.27	2.54	22.42	42.30	55.12	62.18	68.66	82.05
39	-37.22	-23.57	-16.96	-9.77	3.30	23.55	43.81	56.87	64.07	70.68	84.33
40	-39.98	-25.16	-18.22	-10.68	3.03	24.29	45.55	59.25	66.80	73.74	88.08
41	-40.33	-25.72	-18.64	-10.93	3.05	24.75	46.44	60.43	68.13	75.21	89.82
42	-42.07	-27.04	-19.82	-11.93	2.42	24.66	46.90	61.25	69.15	76.40	91.39
43	-42.26	-27.23	-19.96	-12.04	2.34	24.64	46.94	61.32	69.24	76.51	91.54
44	-42.03	-27.08	-19.84	-11.96	2.34	24.53	46.71	61.02	68.90	76.14	91.08
45	-42.78	-27.64	-20.30	-12.32	2.17	24.64	47.12	61.61	69.59	76.93	92.07
46	-43.22	-27.87	-20.43	-12.33	2.37	25.16	47.96	62.66	70.75	78.19	93.55
47	-44.16	-28.33	-20.66	-12.32	2.84	26.34	49.83	64.99	73.33	81.00	96.83
48	-44.55	-28.36	-20.52	-11.99	3.51	27.54	51.57	67.07	75.60	83.44	99.63
49	-45.31	-28.93	-20.99	-12.35	3.33	27.65	51.97	67.65	76.29	84.22	100.61
50	-45.95	-29.52	-21.56	-12.90	2.82	27.20	51.59	67.31	75.97	83.93	100.35
51	-48.18	-31.07	-22.74	-13.76	2.62	29.02	53.43	69.81	78.83	87.12	104.23
52	-50.12	-32.79	-24.39	-15.26	1.33	27.06	52.78	69.37	78.51	86.90	104.23
53	-53.10	-35.21	-26.55	-17.12	.01	26.56	53.12	70.24	79.67	88.34	106.23
54	-52.67	-34.85	-26.22	-16.82	.23	26.68	53.13	70.19	79.58	88.21	106.03
55	-55.14	-36.75	-27.85	-18.15	-.55	26.75	54.05	71.65	81.35	90.25	108.64
56	-58.03	-38.45	-28.97	-18.65	.10	29.17	58.23	76.98	87.30	96.78	116.36
57	-57.12	-37.77	-28.40	-18.20	.32	29.04	57.76	76.28	86.48	95.85	115.20
58	-55.15	-36.93	-28.11	-18.51	-1.07	25.98	53.02	70.46	80.07	88.89	107.11
59	-60.11	-41.04	-31.80	-21.74	-1.88	24.83	53.15	71.41	81.46	90.70	109.78
60	-79.87	-56.04	-44.49	-31.93	-9.12	26.26	61.64	84.46	97.02	108.56	132.40
61	-57.11	-38.68	-29.75	-20.04	-2.39	24.96	52.32	69.96	79.67	88.60	107.03
62	-53.21	-35.95	-27.59	-18.49	-1.97	23.65	49.27	65.80	74.90	83.26	100.52
63	-49.52	-33.38	-25.57	-17.06	-1.61	22.35	46.31	61.76	70.27	78.09	94.23
64	-45.67	-30.69	-23.43	-15.53	-1.19	21.04	43.28	57.62	65.52	72.77	87.75
65	-41.90	-28.06	-21.35	-14.05	-.80	19.75	40.30	53.55	60.85	67.56	81.40
66	-38.10	-25.40	-19.26	-12.56	-.41	18.43	37.28	49.43	56.12	62.27	74.97
67	-34.32	-22.77	-17.17	-11.08	-.02	17.13	34.29	45.35	51.44	57.03	68.59
68	-30.80	-20.33	-15.26	-9.74	.29	15.83	31.38	41.40	46.92	51.99	62.47
69	-27.15	-17.79	-13.26	-8.33	.63	14.52	28.42	37.38	42.31	46.84	56.20
70	-23.60	-15.33	-11.32	-6.96	.95	13.22	25.50	33.41	37.77	41.77	50.04

TABLE 5.1. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

JANUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.85	-9.45	-8.28	-7.02	-4.72	-1.16	2.40	4.70	5.96	7.13	9.53
1	-21.63	-17.11	-14.92	-12.53	-8.21	-1.50	5.21	8.54	11.92	14.11	18.63
2	-24.06	-19.63	-17.49	-15.15	-10.91	-4.34	2.23	6.47	8.80	10.75	15.37
3	-28.05	-23.29	-20.98	-18.47	-13.90	-6.83	2.24	4.90	7.32	9.62	14.34
4	-31.55	-26.57	-24.11	-21.44	-15.57	-7.04	-1.50	3.36	6.04	8.50	13.53
5	-35.76	-30.28	-27.62	-24.73	-19.49	-11.35	-3.21	2.04	4.03	7.58	13.06
6	-39.73	-33.85	-31.01	-27.91	-22.28	-17.56	-4.94	0.78	3.88	6.73	12.67
7	-43.88	-37.55	-34.49	-31.16	-25.10	-19.71	-6.32	-0.27	2.07	6.13	12.40
8	-48.60	-41.72	-38.39	-34.77	-28.19	-17.97	-7.77	-1.19	2.44	5.77	12.65
9	-53.96	-46.37	-42.70	-39.70	-31.44	-20.18	-8.92	-1.66	2.38	6.01	13.60
10	-57.75	-49.83	-45.99	-41.31	-34.22	-22.46	-10.69	-3.11	1.07	4.41	12.94
11	-63.02	-54.48	-50.37	-45.85	-37.67	-25.00	-12.32	-4.15	0.36	4.40	13.03
12	-63.62	-55.32	-51.29	-46.32	-38.97	-26.64	-14.32	-6.37	-1.39	2.03	10.33
13	-60.45	-52.91	-49.26	-45.23	-36.08	-27.90	-15.72	-8.50	-4.53	-0.88	6.65
14	-55.25	-48.66	-45.47	-42.00	-35.70	-25.32	-15.15	-9.89	-6.37	-3.18	3.40
15	-49.29	-43.38	-40.52	-37.40	-31.77	-22.97	-14.20	-8.55	-5.42	-2.57	3.34
16	-42.70	-37.51	-34.99	-32.25	-27.29	-19.57	-11.85	-6.88	-4.24	-1.62	2.57
17	-36.68	-32.04	-29.80	-27.36	-22.82	-16.04	-9.17	-4.73	-2.29	-0.05	4.59
18	-29.62	-25.64	-23.72	-21.62	-17.82	-11.92	-6.02	-2.22	-0.13	1.90	5.77
19	-24.57	-20.92	-19.16	-17.23	-13.74	-8.32	-2.91	0.59	2.51	4.26	7.32
20	-19.99	-16.78	-15.22	-13.53	-10.45	-5.69	-0.92	2.16	3.85	5.41	8.67
21	-19.11	-15.75	-14.17	-12.36	-9.15	-4.17	0.81	4.02	5.75	7.41	10.76
22	-19.30	-15.67	-13.92	-12.01	-8.54	-3.15	2.23	7.61	9.37	12.99	
23	-19.44	-15.62	-13.77	-11.76	-8.10	-2.43	3.24	6.89	8.91	10.76	14.59
24	-20.97	-16.80	-14.77	-12.57	-8.67	-2.37	3.83	7.33	10.03	12.06	16.24
25	-23.15	-18.63	-16.43	-14.05	-9.72	-3.01	3.71	8.04	10.42	12.61	17.14
26	-27.68	-22.33	-19.73	-16.91	-11.79	-4.85	4.10	9.22	12.04	14.63	19.99
27	-31.41	-25.70	-22.19	-18.92	-12.98	-3.76	5.45	11.40	14.67	17.68	23.89
28	-38.76	-32.39	-28.30	-24.94	-18.84	-2.37	7.09	13.19	16.55	19.64	26.01
29	-38.35	-32.89	-28.28	-24.34	-18.20	-3.12	7.96	15.10	19.03	22.65	30.11
30	-41.29	-33.23	-29.17	-24.76	-16.75	-4.33	8.09	16.10	20.51	24.56	32.93
31	-46.42	-37.11	-32.60	-27.70	-18.79	-4.98	8.83	17.74	22.64	27.15	36.45
32	-51.02	-40.92	-36.03	-30.70	-21.03	-6.03	8.95	18.64	23.96	28.85	38.96
33	-56.62	-45.53	-40.16	-34.31	-23.70	-7.24	9.22	19.84	25.68	31.05	42.14
34	-61.83	-49.74	-43.89	-37.51	-25.94	-8.00	9.94	21.51	27.88	33.74	45.83
35	-66.01	-52.96	-46.63	-39.75	-27.25	-7.86	11.52	24.02	30.91	37.23	50.29
36	-69.18	-54.67	-48.16	-41.08	-28.22	-8.29	11.65	24.51	31.59	38.10	51.53
37	-67.85	-54.44	-48.03	-41.07	-28.41	-8.79	10.83	23.48	30.45	36.85	50.07
38	-68.38	-54.90	-48.37	-41.27	-28.37	-8.36	11.64	24.55	31.65	38.18	51.66
39	-68.63	-55.07	-48.51	-41.36	-28.38	-8.26	11.87	24.84	31.99	38.56	52.12
40	-67.88	-54.69	-48.30	-41.34	-28.71	-9.12	10.46	23.09	30.05	36.44	49.63
41	-68.84	-55.29	-48.73	-41.60	-28.63	-8.53	11.57	24.53	31.67	38.23	51.77
42	-67.28	-54.08	-47.68	-40.67	-28.01	-8.38	11.24	23.90	30.87	37.27	50.49
43	-66.51	-53.27	-46.86	-39.89	-27.22	-7.57	12.08	24.75	31.72	38.14	51.37
44	-62.91	-50.44	-44.40	-37.82	-25.88	-7.36	11.16	23.10	29.67	35.71	48.19
45	-62.46	-50.18	-44.23	-37.76	-26.00	-7.77	10.46	22.21	28.69	34.64	46.92
46	-63.76	-51.20	-45.18	-38.51	-26.49	-7.86	10.77	22.78	29.40	35.88	48.03
47	-65.32	-52.35	-46.06	-39.23	-26.81	-7.55	11.71	24.13	30.97	37.25	50.22
48	-63.23	-50.77	-44.70	-38.10	-26.11	-7.53	11.05	23.05	29.65	35.72	48.24
49	-61.36	-49.66	-43.98	-37.81	-26.60	-9.22	8.15	19.36	25.53	31.21	42.91
50	-60.99	-49.65	-44.15	-38.17	-27.31	-10.46	6.36	17.22	23.20	28.69	40.03
51	-62.11	-50.76	-45.27	-39.28	-28.42	-11.57	5.28	16.15	22.13	27.63	38.98
52	-66.26	-54.44	-48.77	-42.59	-31.37	-13.98	3.41	14.63	20.81	26.48	38.20
53	-68.43	-56.71	-51.03	-44.85	-33.63	-16.24	1.16	12.38	18.56	24.24	35.96
54	-70.91	-59.00	-53.23	-46.94	-35.54	-17.85	-0.15	11.24	17.52	23.29	35.21
55	-73.97	-61.66	-55.69	-49.20	-37.42	-19.14	-0.87	10.92	17.41	23.37	35.69
56	-72.41	-60.90	-55.32	-49.25	-36.24	-21.15	-0.07	6.95	13.02	18.69	30.10
57	-73.23	-66.87	-60.88	-54.36	-42.53	-24.17	-5.82	6.01	12.53	18.52	30.88
58	-84.76	-71.51	-65.09	-58.11	-45.42	-25.76	-6.09	6.59	13.57	19.99	33.24
59	-87.34	-73.97	-67.45	-60.44	-47.63	-27.78	-7.93	4.88	11.93	18.40	31.78
60	-84.93	-73.50	-67.47	-64.81	-50.91	-22.33	-7.73	6.12	13.77	20.81	35.33
61	-93.11	-78.52	-71.45	-63.76	-49.79	-28.13	-6.47	7.50	15.19	22.26	36.85
62	-98.11	-75.92	-69.04	-61.56	-47.98	-26.91	-5.85	7.74	15.22	22.09	36.28
63	-87.14	-73.34	-66.66	-59.39	-46.18	-25.70	-5.21	8.00	15.27	21.95	35.75
64	-84.35	-70.92	-64.40	-57.31	-44.44	-24.48	-4.52	8.35	15.44	21.96	35.40
65	-81.81	-68.66	-62.29	-55.36	-42.78	-23.26	-3.75	8.84	15.76	22.13	35.28
66	-79.29	-66.44	-60.21	-53.43	-41.13	-22.05	-2.97	9.34	16.11	22.34	35.20
67	-77.00	-64.38	-58.27	-51.63	-39.55	-20.83	-2.11	9.96	16.61	22.72	35.33
68	-74.57	-62.23	-56.25	-49.74	-37.93	-19.61	-1.29	10.53	17.03	23.01	35.35
69	-72.58	-60.41	-54.52	-48.10	-36.46	-18.40	-0.34	11.31	17.72	23.61	35.78
70	-78.63	-58.67	-52.85	-46.52	-35.02	-17.18	0.65	12.15	18.49	24.31	36.32

TABLE 5.2. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

FEBRUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-12.57	-9.83	-8.50	-7.06	-4.44	-3.38	3.68	6.30	7.74	9.07	11.80
1	-22.18	-17.40	-15.09	-12.57	-9.01	-7.92	6.17	10.74	13.25	15.56	20.34
2	-26.29	-21.33	-19.32	-16.31	-11.56	-10.20	3.16	7.91	10.52	12.93	17.88
3	-30.23	-24.34	-22.37	-19.53	-14.51	-12.65	1.21	6.27	9.06	11.63	16.92
4	-34.50	-28.66	-26.82	-22.74	-17.14	-14.46	0.22	5.81	8.90	11.73	17.58
5	-38.86	-32.52	-30.45	-26.10	-20.07	-16.62	-1.21	4.96	8.20	11.27	17.62
6	-41.69	-35.23	-32.10	-27.69	-22.51	-18.21	-3.32	3.87	6.28	9.41	15.87
7	-45.80	-38.92	-35.59	-31.37	-25.39	-19.18	-4.98	1.61	5.23	8.56	15.44
8	-50.88	-43.41	-39.79	-35.85	-28.70	-21.61	-6.53	0.62	4.56	8.18	15.65
9	-56.07	-48.02	-44.11	-39.87	-32.15	-24.19	-8.24	-0.62	3.72	7.63	15.68
10	-60.82	-52.27	-48.12	-43.61	-35.42	-27.72	-10.02	-1.83	2.68	6.83	15.38
11	-64.39	-56.08	-51.76	-47.06	-37.53	-29.30	-12.07	-3.54	1.16	5.48	14.34
12	-68.15	-59.39	-54.14	-49.52	-40.13	-32.11	-14.10	-5.70	-1.08	3.17	11.93
13	-69.35	-61.31	-55.95	-51.53	-42.97	-34.27	-16.08	-7.96	-3.39	-1.24	6.32
14	-75.26	-68.57	-62.23	-57.80	-48.39	-39.46	-18.52	-9.11	-5.58	-2.34	4.35
15	-80.19	-74.00	-67.01	-63.75	-53.13	-43.65	-21.47	-11.47	-7.55	-4.29	4.89
16	-84.43	-78.82	-71.11	-67.15	-57.79	-47.47	-24.15	-13.78	-9.82	-5.11	5.50
17	-88.19	-83.20	-74.79	-71.15	-61.33	-51.97	-27.86	-16.08	-11.15	-6.27	6.26
18	-90.67	-86.49	-77.46	-74.26	-64.25	-54.83	-30.83	-18.83	-13.38	-7.40	6.58
19	-94.82	-91.04	-81.21	-77.22	-68.15	-58.79	-34.38	-21.38	-16.08	-8.56	9.33
20	-100.03	-96.54	-86.85	-81.02	-72.02	-62.50	-38.67	-24.01	-18.83	-9.63	11.02
21	-105.39	-102.00	-92.20	-86.16	-76.02	-66.84	-42.50	-26.35	-21.38	-10.74	12.72
22	-110.21	-106.58	-96.87	-90.32	-80.44	-70.06	-46.47	-28.67	-23.83	-11.80	14.10
23	-115.04	-111.51	-101.80	-94.94	-84.57	-74.13	-50.40	-31.01	-26.38	-12.93	15.38
24	-119.44	-115.82	-106.06	-98.15	-88.68	-78.13	-54.38	-33.33	-28.63	-14.07	16.48
25	-124.32	-121.57	-111.75	-102.77	-92.79	-82.16	-58.36	-35.67	-30.88	-15.21	17.58
26	-129.57	-126.39	-116.37	-107.17	-97.17	-86.54	-62.34	-37.99	-33.13	-16.35	18.68
27	-135.03	-132.30	-121.80	-112.60	-101.57	-90.94	-66.82	-40.30	-35.38	-17.49	19.78
28	-140.82	-138.33	-127.19	-118.06	-106.94	-96.30	-71.20	-42.61	-37.63	-18.63	20.88
29	-146.29	-144.15	-132.91	-123.46	-112.32	-101.69	-75.61	-44.92	-39.88	-19.77	21.98
30	-151.43	-149.31	-138.05	-128.87	-117.73	-107.06	-80.01	-47.23	-42.13	-20.91	23.08
31	-156.66	-154.55	-143.27	-134.28	-123.14	-112.43	-84.33	-49.54	-44.38	-22.05	24.18
32	-162.03	-160.05	-148.68	-139.69	-128.55	-117.80	-88.64	-51.85	-46.63	-23.19	25.28
33	-167.44	-165.28	-154.09	-145.10	-133.96	-123.17	-92.95	-54.16	-48.88	-24.33	26.38
34	-172.89	-170.57	-159.50	-150.51	-139.37	-128.58	-97.26	-56.47	-51.13	-25.47	27.48
35	-178.38	-175.97	-164.91	-155.92	-144.78	-133.99	-101.57	-58.78	-53.38	-26.61	28.58
36	-183.91	-181.40	-170.32	-161.33	-150.19	-139.40	-105.88	-61.09	-55.63	-27.75	29.68
37	-189.48	-186.87	-175.73	-166.74	-155.60	-144.81	-110.19	-63.40	-57.88	-28.89	30.78
38	-195.09	-192.38	-181.14	-172.15	-161.01	-150.22	-114.50	-65.71	-60.13	-29.93	31.88
39	-200.74	-197.93	-186.55	-177.56	-166.42	-155.63	-118.81	-67.92	-62.38	-31.07	32.98
40	-206.43	-203.52	-191.96	-182.97	-171.83	-161.04	-123.12	-70.13	-64.63	-32.21	34.08
41	-212.16	-209.15	-197.37	-188.38	-177.24	-166.45	-127.43	-72.34	-66.88	-33.35	35.18
42	-217.93	-214.92	-202.78	-193.79	-182.65	-171.86	-131.74	-74.55	-69.13	-34.49	36.28
43	-223.74	-220.73	-208.19	-199.20	-188.06	-177.27	-136.05	-76.76	-71.38	-35.63	37.38
44	-229.59	-226.58	-213.60	-204.61	-193.47	-182.68	-140.36	-78.97	-73.63	-36.77	38.48
45	-235.40	-232.39	-219.01	-210.02	-198.88	-188.09	-144.67	-81.18	-75.88	-37.91	39.58
46	-241.25	-238.24	-224.42	-215.43	-204.29	-193.50	-148.98	-83.39	-78.13	-39.05	40.68
47	-247.14	-244.13	-229.83	-220.84	-209.70	-198.91	-153.29	-85.60	-80.38	-40.19	41.78
48	-253.07	-250.06	-235.24	-226.25	-215.11	-204.32	-157.60	-87.81	-82.63	-41.33	42.88
49	-259.04	-256.03	-240.65	-231.66	-220.52	-209.73	-161.91	-89.92	-84.88	-42.47	43.98
50	-265.05	-262.04	-246.06	-237.07	-225.93	-215.14	-166.22	-92.13	-87.13	-43.61	45.08
51	-271.10	-268.09	-251.47	-242.48	-231.34	-220.55	-170.53	-94.34	-89.38	-44.75	46.18
52	-277.19	-274.18	-256.88	-247.89	-236.75	-225.96	-174.84	-96.55	-91.63	-45.89	47.28
53	-283.32	-280.31	-262.29	-253.30	-242.16	-231.37	-179.15	-98.76	-93.88	-47.03	48.38
54	-289.49	-286.48	-267.70	-258.71	-247.57	-236.78	-183.46	-100.97	-96.13	-48.17	49.48
55	-295.70	-292.69	-273.11	-264.12	-252.98	-242.19	-187.77	-103.18	-98.38	-49.31	50.58
56	-301.95	-298.94	-278.52	-269.53	-258.39	-247.60	-192.08	-105.39	-100.63	-50.45	51.68
57	-308.24	-305.23	-283.93	-274.94	-263.80	-253.01	-196.39	-107.60	-102.88	-51.59	52.78
58	-314.57	-311.56	-289.34	-280.35	-269.21	-258.42	-200.70	-109.81	-105.13	-52.73	53.88
59	-320.94	-317.93	-294.75	-285.76	-274.62	-263.83	-205.01	-112.02	-107.38	-53.87	54.98
60	-327.35	-324.34	-300.16	-291.17	-280.03	-269.24	-209.32	-114.23	-109.63	-55.01	56.08
61	-333.80	-330.79	-305.57	-296.58	-285.44	-274.65	-213.63	-116.44	-111.88	-56.15	57.18
62	-340.29	-337.28	-310.98	-301.99	-290.85	-280.06	-217.94	-118.65	-114.13	-57.29	58.28
63	-346.82	-343.81	-316.39	-307.40	-296.26	-285.47	-222.25	-120.86	-116.38	-58.43	59.38
64	-353.39	-350.38	-321.80	-312.81	-301.67	-290.88	-226.56	-123.07	-118.63	-59.57	60.48
65	-359.99	-356.98	-327.21	-318.22	-307.08	-296.29	-230.87	-125.28	-120.88	-60.71	61.58
66	-366.62	-363.61	-332.62	-323.63	-312.49	-301.70	-235.18	-127.49	-123.13	-61.85	62.68
67	-373.29	-370.28	-338.03	-329.04	-317.90	-307.11	-239.49	-129.70	-125.38	-62.99	63.78
68	-379.99	-376.98	-343.44	-334.45	-323.31	-312.52	-243.80	-131.91	-127.63	-64.13	64.88
69	-386.72	-383.71	-348.85	-339.86	-328.72	-317.93	-248.11	-134.12	-129.88	-65.27	65.98
70	-393.49	-390.48	-354.26	-345.27	-334.13	-323.34	-252.42	-136.33	-132.13	-66.41	67.08

TABLE 5.3. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

MARCH

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.56	-8.98	-7.77	-6.37	-3.80	-0.89	3.75	8.22	7.57	8.82	11.40
1	-20.45	-16.10	-13.90	-11.70	-7.53	-1.07	5.18	9.55	11.34	13.95	14.30
2	-27.17	-18.90	-16.82	-14.58	-10.49	-4.15	2.19	6.28	8.57	10.60	14.87
3	-37.49	-22.81	-20.54	-17.07	-11.59	-6.64	3.31	4.79	7.26	9.53	14.21
4	-35.69	-27.43	-24.89	-22.12	-17.09	-9.29	-1.49	7.54	6.31	8.05	14.11
5	-36.68	-31.14	-28.46	-25.54	-20.24	-12.02	-3.90	1.50	4.42	7.10	12.64
6	-40.44	-34.61	-31.78	-28.71	-25.13	-14.47	-5.87	-2.24	2.94	5.66	11.49
7	-45.02	-38.71	-35.66	-32.34	-28.31	-16.96	-7.60	-1.57	1.75	4.80	11.17
8	-49.55	-42.78	-39.50	-35.93	-32.45	-19.40	-9.34	-2.46	0.71	3.29	10.76
9	-57.35	-49.46	-45.63	-41.47	-37.92	-27.20	-10.49	-2.93	1.23	5.05	10.34
10	-65.19	-56.16	-51.78	-47.02	-43.38	-29.98	-11.57	-2.97	1.07	6.21	10.24
11	-71.53	-61.69	-56.93	-51.75	-47.34	-27.74	-13.14	-3.73	1.45	6.21	10.05
12	-71.31	-61.98	-57.46	-52.54	-48.61	-27.77	-15.92	-4.95	-2.09	2.44	11.77
13	-66.41	-58.19	-54.21	-49.83	-45.01	-29.81	-17.61	-4.75	-5.41	-1.43	6.73
14	-58.87	-52.65	-49.15	-45.35	-40.43	-27.72	-17.00	-10.08	-6.29	-2.79	4.43
15	-52.73	-46.32	-43.21	-39.87	-35.70	-24.13	-14.66	-9.52	-5.14	-2.03	4.33
16	-46.10	-40.36	-37.58	-34.55	-29.05	-20.53	-12.00	-6.51	-2.48	-1.70	5.05
17	-39.26	-34.10	-31.61	-28.89	-23.95	-16.31	-8.67	-3.73	-1.22	1.48	6.67
18	-31.98	-27.88	-25.30	-22.93	-18.63	-11.96	-5.29	-0.99	1.39	3.57	8.06
19	-24.66	-20.81	-18.94	-16.91	-13.21	-7.49	-1.76	1.93	3.36	5.93	3.69
20	-20.04	-16.51	-14.75	-12.97	-9.54	-4.29	0.96	4.34	6.21	7.92	11.40
21	-17.15	-13.81	-12.19	-10.43	-7.23	-2.27	2.69	5.89	7.55	9.27	12.61
22	-16.32	-12.99	-11.23	-9.42	-6.14	-1.05	4.04	7.33	9.13	10.78	14.22
23	-15.09	-11.73	-10.10	-8.33	-5.11	-1.12	4.87	9.09	9.56	11.44	14.85
24	-15.48	-12.00	-10.32	-8.49	-5.16	-0.01	5.15	8.44	10.31	11.99	15.46
25	-16.87	-13.17	-11.33	-9.47	-6.90	-0.41	5.08	8.61	10.46	12.35	16.05
26	-18.75	-14.82	-12.89	-10.80	-8.99	-1.10	4.80	8.60	10.70	12.62	16.67
27	-21.60	-17.06	-14.86	-12.47	-10.13	-1.39	5.34	9.69	12.08	14.27	19.31
28	-18.88	-14.32	-12.52	-10.55	-8.98	-1.48	4.08	7.65	9.62	11.42	15.15
29	-24.88	-18.88	-14.83	-12.68	-10.77	-2.71	3.34	7.25	9.40	11.38	15.46
30	-24.76	-18.14	-17.90	-15.46	-11.04	-4.18	2.68	7.11	9.54	11.78	16.40
31	-24.99	-23.78	-21.28	-18.52	-13.54	-5.81	1.91	6.89	9.64	12.16	17.38
32	-33.14	-27.36	-24.56	-21.51	-15.98	-7.40	1.18	6.71	9.76	12.56	18.34
33	-34.18	-31.63	-28.30	-24.79	-18.42	-8.54	1.34	7.71	11.22	14.45	21.11
34	-42.92	-35.36	-31.70	-27.72	-20.49	-9.27	1.95	9.18	13.16	16.82	24.38
35	-44.88	-36.95	-33.12	-28.95	-21.38	-9.65	2.08	9.65	13.82	17.64	25.55
36	-42.58	-35.10	-31.47	-27.53	-20.36	-9.25	1.86	9.03	12.97	16.60	24.08
37	-41.11	-34.00	-30.55	-26.81	-20.00	-9.44	1.11	7.92	11.67	15.11	22.23
38	-43.34	-35.98	-32.42	-28.54	-21.50	-10.59	0.33	7.37	11.25	14.81	22.17
39	-44.66	-37.20	-33.58	-29.65	-22.51	-11.44	-0.37	6.77	10.71	14.32	21.78
40	-44.57	-37.27	-33.74	-29.90	-22.92	-12.09	-1.27	5.71	9.55	13.09	20.38
41	-47.22	-39.47	-35.71	-31.62	-24.20	-12.69	-1.17	6.25	10.34	14.09	21.85
42	-46.78	-39.15	-35.46	-31.44	-24.14	-12.83	-1.51	5.78	9.80	13.49	21.12
43	-45.06	-37.81	-34.29	-30.47	-23.52	-12.75	-1.97	4.97	8.80	12.31	19.57
44	-45.29	-38.02	-34.45	-30.66	-23.69	-12.89	-2.09	4.87	8.71	12.23	19.51
45	-45.67	-38.37	-34.84	-30.99	-24.00	-13.17	-2.33	4.65	8.50	12.04	19.34
46	-45.61	-38.47	-35.01	-31.24	-24.40	-13.80	-3.20	3.64	7.41	10.87	18.01
47	-45.28	-38.27	-34.88	-31.18	-24.47	-14.06	-3.66	3.05	6.75	10.14	17.15
48	-45.87	-39.02	-35.70	-32.08	-25.52	-15.34	-5.17	1.39	5.01	8.33	15.18
49	-46.92	-40.10	-36.79	-33.19	-26.66	-16.53	-6.40	0.13	3.73	7.03	13.86
50	-44.32	-41.46	-38.14	-34.52	-27.96	-17.78	-7.60	-1.04	2.58	5.90	12.76
51	-43.56	-42.80	-39.52	-35.95	-29.48	-19.44	-9.40	-2.92	0.64	3.92	10.69
52	-49.34	-42.97	-39.89	-36.53	-30.44	-20.99	-11.54	-5.45	-2.09	0.99	7.35
53	-49.29	-43.33	-40.45	-37.31	-31.60	-22.75	-13.91	-8.20	-5.06	-2.17	3.79
54	-51.16	-44.99	-42.00	-38.75	-32.85	-23.69	-14.54	-8.63	-5.38	-2.39	3.77
55	-55.08	-48.22	-44.89	-41.28	-34.71	-24.52	-14.34	-7.77	-4.15	-0.83	6.03
56	-57.44	-50.09	-46.52	-42.65	-35.61	-24.70	-13.79	-6.75	-2.87	0.69	8.04
57	-61.07	-52.89	-48.93	-45.62	-36.80	-24.66	-12.53	-4.70	-2.39	3.57	11.74
58	-63.51	-59.72	-54.97	-49.81	-40.43	-25.89	-11.35	-1.98	3.19	7.93	17.73
59	-71.68	-61.06	-55.95	-50.40	-40.31	-24.67	-9.03	1.06	6.62	11.72	22.26
60	-74.69	-62.82	-57.21	-51.00	-39.73	-22.24	-4.76	6.52	12.73	18.43	30.21
61	-65.12	-55.25	-50.47	-45.27	-35.82	-21.17	-6.52	2.93	8.13	12.91	22.78
62	-63.24	-53.55	-48.86	-43.75	-34.48	-20.10	-5.73	3.55	8.65	13.34	23.03
63	-61.47	-51.94	-47.32	-42.30	-33.17	-19.03	-4.88	4.24	9.26	13.88	23.41
64	-59.59	-50.24	-45.71	-40.78	-31.84	-17.96	-4.08	4.86	9.79	14.32	23.67
65	-57.70	-48.54	-44.10	-39.27	-30.49	-16.89	-3.28	5.49	10.32	14.76	23.93
66	-55.82	-46.83	-42.48	-37.75	-29.15	-15.81	-2.47	6.13	10.86	15.21	24.20
67	-53.95	-45.14	-40.88	-36.24	-27.81	-14.74	-1.68	6.75	11.39	15.66	24.46
68	-52.20	-43.55	-39.36	-34.80	-26.51	-13.67	-0.82	7.46	12.02	16.21	24.86
69	-50.34	-41.86	-37.76	-33.29	-25.18	-12.60	-0.02	8.09	12.56	16.66	25.13
70	-48.47	-40.17	-36.15	-31.78	-23.84	-11.53	0.79	8.73	13.10	17.12	25.41

TABLE 5.4. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

APRIL

Cumulative Percentage Probability										
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000
0	-9.60	-7.20	-6.04	-4.78	-2.43	1.03	4.64	6.94	8.20	9.37
1	-16.55	-14.33	-12.29	-10.07	-6.04	2.22	6.48	10.11	12.73	14.77
2	-20.82	-16.67	-14.65	-12.46	-8.48	-2.31	3.86	7.84	10.03	12.04
3	-25.92	-21.15	-18.84	-16.32	-11.76	-4.67	2.41	6.98	9.49	11.80
4	-29.48	-24.38	-21.31	-18.22	-14.33	-6.76	4.81	5.70	8.33	10.86
5	-32.92	-27.49	-24.86	-22.00	-16.80	-8.74	-6.68	4.72	7.38	10.01
6	-37.39	-31.44	-28.56	-25.42	-19.73	-10.90	-2.07	3.63	6.76	9.65
7	-41.87	-35.43	-32.32	-28.92	-22.76	-13.20	-3.64	2.52	5.81	9.03
8	-46.34	-39.91	-36.50	-32.30	-26.06	-15.63	-5.19	1.54	5.25	8.65
9	-50.85	-44.98	-41.16	-37.01	-29.47	-17.78	-6.09	1.44	5.00	9.41
10	-55.60	-49.72	-45.16	-40.74	-32.72	-20.29	-7.85	1.17	4.59	8.65
11	-60.41	-55.13	-50.63	-45.74	-36.86	-23.09	-9.31	0.43	4.40	8.95
12	-65.47	-60.87	-56.22	-50.17	-40.93	-25.73	-11.49	-2.30	2.76	7.41
13	-66.84	-67.94	-63.62	-58.93	-48.41	-27.20	-13.58	-5.46	1.77	3.55
14	-59.49	-61.88	-58.19	-54.18	-46.49	-25.59	-14.29	-7.00	-2.99	1.31
15	-50.46	-64.12	-61.07	-57.70	-51.67	-22.22	-12.80	-6.73	-3.39	0.31
16	-43.58	-57.84	-55.11	-52.13	-46.73	-18.35	-9.97	-4.57	-1.59	1.14
17	-39.74	-50.84	-48.47	-45.85	-41.20	-13.92	-6.65	-1.96	0.62	3.00
18	-27.17	-33.13	-31.17	-29.04	-25.17	-9.16	-3.16	0.71	2.84	4.80
19	-20.49	-26.94	-25.23	-23.36	-20.96	-4.70	0.56	3.95	5.82	7.54
20	-16.07	-22.88	-21.34	-19.66	-17.61	-1.88	2.85	5.90	7.58	9.12
21	-12.61	-18.85	-17.51	-16.05	-14.40	-0.29	3.82	6.47	7.93	9.27
22	-11.04	-17.35	-16.04	-14.63	-13.05	0.94	4.93	7.51	8.93	10.23
23	-10.93	-16.35	-15.00	-13.63	-12.67	1.46	5.58	8.25	9.71	11.06
24	-11.03	-15.22	-13.86	-12.49	-11.48	1.48	5.65	8.33	9.81	11.17
25	-11.66	-14.77	-13.37	-12.00	-10.98	1.22	5.51	8.28	9.80	11.20
26	-13.68	-13.38	-11.98	-10.74	-9.87	1.03	5.94	9.10	10.94	12.44
27	-15.99	-12.32	-10.94	-9.61	-8.61	0.36	5.81	9.33	11.26	13.04
28	-19.72	-11.90	-10.06	-8.05	-6.39	1.27	6.93	10.58	12.55	14.44
29	-17.34	-13.30	-11.38	-9.21	-5.35	0.65	6.64	10.51	12.64	14.59
30	-19.47	-15.16	-13.07	-10.80	-6.68	-0.28	6.12	10.24	12.52	14.60
31	-20.87	-16.43	-14.28	-11.95	-7.70	-1.12	5.46	9.70	12.04	14.19
32	-22.88	-18.22	-15.97	-13.51	-9.05	-2.13	4.79	9.25	11.71	13.97
33	-21.20	-17.13	-15.11	-12.92	-8.95	-2.78	3.39	7.37	9.56	11.57
34	-24.53	-19.94	-17.71	-15.29	-10.88	-4.06	2.76	7.17	9.59	11.82
35	-27.80	-22.54	-20.00	-17.23	-12.20	-4.40	3.41	8.44	11.21	13.75
36	-29.83	-24.14	-21.39	-18.39	-12.94	-4.49	3.95	9.40	12.40	15.16
37	-28.09	-22.84	-20.29	-17.52	-12.49	-4.68	3.12	8.15	10.92	13.47
38	-28.69	-23.35	-20.76	-17.95	-12.84	-4.91	3.01	8.12	10.93	13.52
39	-28.38	-22.84	-20.16	-17.24	-11.94	-3.73	4.49	9.79	12.71	15.39
40	-30.38	-24.52	-21.68	-18.58	-12.97	-4.26	4.45	10.06	13.15	15.99
41	-27.80	-22.43	-19.82	-16.99	-11.85	-3.87	4.11	9.26	12.09	14.69
42	-28.88	-23.17	-20.41	-17.40	-11.94	-3.46	5.01	10.47	13.48	16.25
43	-29.80	-23.71	-20.75	-17.54	-11.70	-2.65	6.40	12.23	15.45	18.40
44	-29.96	-23.71	-20.68	-17.39	-11.40	-2.12	7.16	13.14	16.44	19.47
45	-30.30	-23.87	-20.75	-17.36	-11.20	-1.66	7.89	14.05	17.44	20.55
46	-33.07	-26.05	-22.64	-18.94	-12.21	-1.77	8.66	15.39	19.09	22.50
47	-36.28	-28.80	-25.18	-21.24	-14.08	-2.99	8.11	15.27	19.21	22.83
48	-36.68	-29.37	-25.83	-21.98	-14.98	-4.14	6.71	13.71	17.56	21.10
49	-39.55	-31.76	-27.99	-23.88	-16.43	-4.87	6.69	14.15	18.25	22.03
50	-40.24	-32.23	-28.35	-24.13	-16.46	-4.57	7.32	14.98	19.21	23.09
51	-40.91	-32.71	-28.78	-24.42	-16.57	-4.40	7.77	15.61	19.93	23.90
52	-42.30	-33.80	-29.69	-25.21	-17.07	-4.45	8.16	16.30	20.78	24.89
53	-41.67	-33.46	-29.48	-25.15	-17.29	-5.11	7.08	14.94	19.27	23.24
54	-40.69	-32.88	-29.09	-24.97	-17.49	-5.89	5.72	13.20	17.32	21.10
55	-42.82	-34.80	-30.91	-26.68	-19.00	-7.09	4.82	12.50	16.73	20.62
56	-42.84	-35.01	-31.22	-27.09	-19.59	-7.96	3.66	11.16	15.29	19.08
57	-42.11	-34.61	-30.99	-27.04	-19.87	-8.75	2.37	9.54	13.49	17.12
58	-44.83	-37.00	-33.20	-29.07	-21.57	-9.94	1.70	9.20	13.33	17.12
59	-40.82	-33.39	-29.78	-25.86	-18.74	-7.70	3.34	10.46	14.38	17.98
60	-46.85	-38.17	-33.96	-29.39	-21.08	-8.19	4.70	13.01	17.59	21.80
61	-49.10	-39.87	-35.40	-30.54	-21.70	-8.00	5.70	14.54	19.41	23.88
62	-48.43	-39.31	-34.89	-30.08	-21.35	-7.81	5.73	14.46	19.26	23.68
63	-47.56	-38.67	-34.31	-29.57	-20.96	-7.62	5.73	14.34	19.08	23.44
64	-46.99	-38.11	-33.81	-29.12	-20.62	-7.43	5.76	14.26	18.94	23.25
65	-46.61	-37.77	-33.49	-28.82	-20.36	-7.24	5.88	14.35	19.01	23.29
66	-45.85	-37.14	-32.92	-28.32	-19.98	-7.05	5.88	14.23	18.82	23.04
67	-45.20	-36.59	-32.42	-27.88	-19.64	-6.87	5.91	14.15	18.69	22.86
68	-44.63	-36.10	-31.97	-27.48	-19.32	-6.67	5.99	14.15	18.64	22.77
69	-43.98	-35.56	-31.48	-27.05	-18.98	-6.48	6.02	14.08	18.52	22.59
70	-43.43	-35.09	-31.05	-26.65	-18.67	-6.29	6.08	14.07	18.46	22.50

TABLE 5.5. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH
MAY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-6.97	-5.05	-4.12	-3.11	-2.17	-1.53	-0.93	-0.36	0.21	0.81	1.43
1	-12.16	-9.17	-7.73	-6.15	-4.29	-2.84	-1.44	-0.42	0.44	1.44	2.44
2	-13.56	-10.55	-9.24	-7.71	-5.83	-4.00	-2.44	-1.14	0.00	1.00	2.00
3	-15.34	-12.22	-10.71	-9.07	-6.99	-5.00	-3.44	-1.84	0.00	1.00	2.00
4	-17.30	-14.32	-12.59	-10.81	-8.45	-6.22	-4.22	-2.44	0.00	1.00	2.00
5	-20.12	-16.38	-14.55	-12.59	-10.00	-7.44	-5.22	-3.44	0.00	1.00	2.00
6	-23.22	-19.03	-17.01	-14.38	-11.80	-9.45	-7.22	-5.22	0.00	1.00	2.00
7	-26.65	-21.95	-19.67	-17.20	-14.70	-12.22	-9.72	-7.22	0.00	1.00	2.00
8	-29.46	-24.34	-21.87	-19.17	-16.27	-13.72	-11.22	-8.72	0.00	1.00	2.00
9	-33.76	-27.96	-25.15	-22.10	-18.55	-15.94	-13.44	-10.94	0.00	1.00	2.00
10	-38.41	-31.88	-28.72	-25.23	-21.03	-17.94	-14.94	-12.44	0.00	1.00	2.00
11	-43.13	-35.95	-32.46	-28.70	-24.83	-21.12	-17.62	-15.12	0.00	1.00	2.00
12	-47.55	-39.32	-36.07	-32.00	-28.60	-24.81	-21.31	-18.81	0.00	1.00	2.00
13	-49.59	-41.91	-38.21	-34.15	-30.81	-26.81	-23.31	-20.81	0.00	1.00	2.00
14	-49.51	-41.90	-38.20	-34.14	-30.80	-26.80	-23.30	-20.80	0.00	1.00	2.00
15	-36.39	-31.30	-28.64	-26.16	-23.29	-20.29	-17.79	-15.29	0.00	1.00	2.00
16	-29.95	-25.67	-23.59	-21.73	-19.23	-16.73	-14.23	-11.73	0.00	1.00	2.00
17	-23.25	-19.70	-17.98	-16.12	-13.71	-11.44	-9.22	-7.00	0.00	1.00	2.00
18	-17.71	-14.63	-13.14	-11.51	-9.55	-7.99	-6.59	-5.19	0.00	1.00	2.00
19	-12.78	-10.12	-8.83	-7.42	-5.89	-4.59	-3.29	-1.99	0.00	1.00	2.00
20	-9.57	-7.21	-6.07	-4.82	-3.56	-2.56	-1.56	-0.56	0.00	1.00	2.00
21	-7.92	-5.56	-4.42	-3.17	-1.91	-1.00	-0.40	-0.20	0.00	1.00	2.00
22	-7.65	-5.15	-3.93	-2.72	-1.44	-0.79	-0.40	-0.20	0.00	1.00	2.00
23	-6.77	-4.30	-3.11	-1.81	-0.55	-0.21	-0.11	-0.05	0.00	1.00	2.00
24	-6.07	-4.30	-3.05	-1.59	-0.77	-0.41	-0.21	-0.11	0.00	1.00	2.00
25	-7.09	-5.09	-3.73	-2.25	-0.93	-0.40	-0.21	-0.11	0.00	1.00	2.00
26	-8.58	-5.61	-4.17	-2.61	-1.24	-0.65	-0.30	-0.15	0.00	1.00	2.00
27	-10.01	-6.77	-5.20	-3.50	-1.90	-1.00	-0.50	-0.25	0.00	1.00	2.00
28	-10.98	-7.31	-5.55	-3.63	-1.95	-1.05	-0.55	-0.25	0.00	1.00	2.00
29	-13.11	-9.05	-7.08	-4.94	-2.84	-1.44	-0.79	-0.40	0.00	1.00	2.00
30	-13.99	-9.76	-7.71	-5.49	-3.14	-1.64	-0.89	-0.44	0.00	1.00	2.00
31	-15.80	-11.37	-9.23	-6.90	-4.27	-2.27	-1.27	-0.77	0.00	1.00	2.00
32	-16.03	-11.62	-9.48	-7.15	-4.53	-2.53	-1.53	-1.03	0.00	1.00	2.00
33	-16.28	-11.94	-9.84	-7.55	-4.94	-2.94	-1.94	-1.44	0.00	1.00	2.00
34	-17.46	-12.94	-10.75	-8.36	-5.40	-3.40	-2.40	-1.90	0.00	1.00	2.00
35	-18.23	-13.51	-11.23	-8.75	-5.83	-3.83	-2.83	-2.33	0.00	1.00	2.00
36	-17.90	-13.17	-10.88	-8.39	-5.49	-3.49	-2.49	-1.99	0.00	1.00	2.00
37	-18.59	-13.84	-10.94	-8.82	-5.99	-3.99	-2.99	-2.49	0.00	1.00	2.00
38	-17.21	-12.22	-9.81	-7.14	-4.41	-2.41	-1.41	-0.91	0.00	1.00	2.00
39	-15.38	-10.65	-8.36	-5.87	-3.35	-1.35	-0.35	-0.15	0.00	1.00	2.00
40	-14.16	-9.56	-7.33	-5.40	-2.99	-1.00	-0.50	-0.25	0.00	1.00	2.00
41	-12.12	-7.71	-5.57	-3.24	-1.59	-0.59	-0.29	-0.14	0.00	1.00	2.00
42	-10.13	-5.81	-3.73	-1.95	-0.95	-0.45	-0.20	-0.10	0.00	1.00	2.00
43	-9.99	-5.63	-3.51	-1.81	-0.81	-0.31	-0.15	-0.08	0.00	1.00	2.00
44	-10.59	-5.66	-3.27	-1.67	-0.67	-0.17	-0.08	-0.04	0.00	1.00	2.00
45	-11.69	-6.36	-3.78	-1.98	-0.98	-0.48	-0.23	-0.12	0.00	1.00	2.00
46	-12.16	-6.56	-3.85	-2.05	-1.05	-0.55	-0.30	-0.15	0.00	1.00	2.00
47	-9.90	-4.53	-1.98	-0.89	-0.39	-0.09	-0.04	-0.02	0.00	1.00	2.00
48	-9.55	-4.20	-1.61	-0.72	-0.22	-0.02	-0.01	-0.00	0.00	1.00	2.00
49	-9.62	-4.05	-1.36	-0.58	-0.08	-0.03	-0.01	-0.00	0.00	1.00	2.00
50	-7.66	-2.13	-0.55	-0.17	-0.07	-0.02	-0.01	-0.00	0.00	1.00	2.00
51	-8.94	-3.04	-1.19	-0.29	-0.09	-0.04	-0.02	-0.01	0.00	1.00	2.00
52	-12.38	-5.76	-2.56	-0.93	-0.27	-0.07	-0.03	-0.01	0.00	1.00	2.00
53	-12.56	-5.82	-2.55	-1.00	-0.46	-0.16	-0.07	-0.03	0.00	1.00	2.00
54	-9.94	-3.75	-1.75	-0.52	-0.14	-0.04	-0.02	-0.01	0.00	1.00	2.00
55	-10.11	-3.92	-1.93	-0.53	-0.15	-0.05	-0.02	-0.01	0.00	1.00	2.00
56	-13.40	-6.51	-3.18	-1.05	-0.35	-0.10	-0.04	-0.02	0.00	1.00	2.00
57	-18.43	-10.42	-6.55	-2.33	-0.53	-0.17	-0.09	-0.05	0.00	1.00	2.00
58	-23.16	-14.05	-9.64	-4.84	-1.84	-0.94	-0.44	-0.24	0.00	1.00	2.00
59	-21.71	-13.32	-9.26	-4.84	-1.84	-0.94	-0.44	-0.24	0.00	1.00	2.00
60	-29.70	-19.62	-14.74	-9.43	-3.21	-1.57	-0.82	-0.42	0.00	1.00	2.00
61	-31.91	-21.44	-16.36	-10.84	-3.81	-1.74	-0.97	-0.57	0.00	1.00	2.00
62	-29.64	-19.77	-14.99	-9.79	-3.34	-1.61	-0.86	-0.46	0.00	1.00	2.00
63	-27.48	-18.19	-13.69	-8.80	-3.09	-1.48	-0.73	-0.38	0.00	1.00	2.00
64	-25.02	-16.38	-12.20	-7.64	-2.63	-1.26	-0.66	-0.31	0.00	1.00	2.00
65	-22.86	-14.80	-10.90	-6.65	-1.07	-0.53	-0.26	-0.13	0.00	1.00	2.00
66	-20.59	-13.14	-9.53	-5.60	-0.54	-0.26	-0.13	-0.06	0.00	1.00	2.00
67	-18.13	-11.33	-8.03	-4.44	-0.20	-0.11	-0.05	-0.02	0.00	1.00	2.00
68	-15.98	-9.75	-6.74	-3.46	-0.50	-0.11	-0.05	-0.02	0.00	1.00	2.00
69	-13.65	-8.04	-5.38	-2.37	-0.99	-0.31	-0.15	-0.07	0.00	1.00	2.00
70	-11.38	-6.38	-3.95	-1.32	-0.47	-0.10	-0.05	-0.02	0.00	1.00	2.00

TABLE 5.6. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

JUNE

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-6.32	-4.57	-3.72	-2.80	-1.12	1.49	4.08	5.75	6.67	7.52	9.27
1	-10.49	-7.88	-6.61	-5.24	-2.74	1.14	5.01	7.51	8.89	10.15	12.76
2	-11.99	-9.32	-8.03	-6.63	-4.09	-1.15	3.79	6.34	7.74	9.02	11.69
3	-13.01	-10.25	-8.91	-7.46	-4.81	-1.71	3.39	6.03	7.48	8.82	11.58
4	-14.01	-11.12	-9.72	-8.20	-5.43	-1.15	3.14	5.91	7.43	8.83	11.72
5	-15.11	-12.06	-10.62	-9.09	-6.08	-1.56	2.95	5.86	7.47	8.94	11.88
6	-16.20	-13.03	-11.49	-9.92	-6.79	-2.06	2.65	5.69	7.36	8.90	12.03
7	-18.02	-14.55	-12.87	-11.04	-7.72	-2.57	2.59	5.90	7.73	9.41	12.87
8	-20.06	-16.21	-14.35	-12.32	-8.63	-3.32	2.79	6.48	8.51	10.37	14.22
9	-23.37	-18.91	-16.75	-14.41	-10.14	-4.53	3.08	7.35	9.70	11.85	16.31
10	-27.33	-22.11	-19.58	-16.83	-11.93	-4.09	3.66	8.66	11.41	13.34	19.15
11	-31.22	-25.30	-22.44	-19.32	-13.66	-4.08	3.90	9.56	12.68	15.55	21.46
12	-35.02	-29.35	-26.17	-22.60	-15.21	-6.31	3.60	9.38	13.50	16.73	23.40
13	-38.82	-31.85	-28.47	-24.80	-16.72	-7.77	2.58	9.25	12.33	16.31	23.28
14	-36.36	-29.91	-26.91	-23.56	-17.46	-8.02	1.43	7.52	10.37	13.95	20.32
15	-30.64	-25.30	-22.71	-19.91	-14.78	-6.85	1.08	6.19	9.01	11.60	16.94
16	-21.54	-17.61	-15.71	-13.64	-9.93	-4.05	1.78	5.54	7.61	9.51	13.43
17	-14.52	-11.52	-10.06	-8.48	-6.60	-1.15	3.31	5.94	7.77	9.23	12.23
18	-3.27	-6.94	-5.66	-4.31	-2.05	1.56	5.16	7.49	8.77	9.95	12.39
19	-5.40	-3.32	-2.31	-1.22	-0.78	3.87	6.96	8.95	10.05	11.06	13.14
20	-3.79	-1.72	-0.72	-0.37	2.35	5.43	8.50	10.49	11.58	12.59	14.65
21	-3.63	-1.31	-0.19	1.02	3.25	6.69	10.13	12.34	13.57	14.69	17.00
22	-2.96	-0.56	0.61	1.33	4.13	7.76	11.33	13.63	14.90	16.07	18.43
23	-2.08	0.31	1.47	2.73	5.03	8.58	12.14	14.43	15.70	16.86	19.25
24	-1.53	0.85	2.01	3.26	5.55	9.09	12.63	14.91	16.17	17.32	19.71
25	-1.82	0.71	1.94	3.27	5.69	9.45	13.20	15.62	16.96	18.18	20.71
26	-2.48	0.24	1.56	3.00	5.60	9.64	13.68	16.28	17.71	19.03	21.75
27	-3.14	-0.23	1.15	2.67	5.44	9.72	14.01	16.77	18.30	19.70	22.58
28	-3.51	-0.30	1.26	2.95	6.02	10.78	15.55	18.62	20.31	21.86	25.07
29	-3.67	-0.43	1.14	2.85	5.95	10.77	15.58	18.68	20.39	21.96	25.20
30	-3.81	-0.19	1.78	3.43	6.50	11.26	16.02	19.09	20.78	22.33	25.54
31	-2.77	0.19	2.07	3.79	6.92	11.76	16.60	19.73	21.45	23.03	26.29
32	-3.21	0.13	1.74	3.50	6.70	11.66	16.62	19.81	21.57	23.19	26.53
33	-3.01	0.29	1.89	3.62	6.78	11.67	16.57	19.72	21.46	23.06	26.35
34	-5.02	-1.17	0.70	2.73	6.42	12.14	17.86	21.55	23.58	25.45	29.30
35	-4.43	-0.64	1.19	3.19	6.82	12.44	18.06	21.68	23.68	25.51	29.30
36	-4.27	-0.29	1.71	3.83	7.68	13.65	19.63	23.48	25.60	27.55	31.58
37	-2.44	1.50	3.40	5.48	9.24	15.09	20.93	24.70	26.77	28.68	32.61
38	-1.69	2.20	4.21	6.30	10.11	16.01	21.91	25.72	27.81	29.74	33.72
39	-0.00	3.85	5.71	7.74	11.43	17.14	22.86	26.54	28.57	30.44	34.29
40	1.47	5.45	7.18	9.06	12.49	17.80	23.11	26.54	28.42	30.15	33.73
41	1.72	5.59	7.46	9.49	13.20	18.93	24.67	28.37	30.41	32.29	36.15
42	2.45	6.48	8.48	10.56	14.41	20.39	26.37	30.22	32.34	34.23	38.32
43	3.78	7.97	10.00	12.21	16.23	22.45	28.68	32.69	34.90	36.94	41.13
44	5.47	10.16	12.24	14.50	18.61	24.98	31.35	35.45	37.71	39.79	44.08
45	6.01	10.50	12.80	15.21	19.59	26.38	33.17	37.55	39.97	42.18	46.76
46	6.63	11.41	13.72	16.24	20.81	27.91	35.00	39.58	42.10	44.41	49.19
47	7.82	12.71	15.08	17.66	22.35	29.62	36.88	41.57	44.15	46.52	51.41
48	9.54	14.47	16.86	19.45	24.17	31.48	38.80	43.51	46.11	48.99	53.42
49	8.77	14.22	16.86	19.73	24.94	33.03	41.12	46.33	49.20	51.84	57.29
50	8.03	13.58	16.26	19.19	24.49	32.73	40.96	46.27	49.19	51.88	57.42
51	6.72	12.67	15.55	18.68	24.37	33.19	42.01	47.70	50.83	53.71	59.65
52	5.15	11.47	14.54	17.87	23.93	33.32	42.71	48.76	52.10	55.16	61.49
53	2.45	9.45	12.84	16.52	23.22	33.61	44.00	50.70	54.39	57.78	64.77
54	4.84	11.29	14.42	17.81	23.99	33.56	43.13	49.30	52.70	55.82	62.27
55	4.79	11.26	14.40	17.81	24.00	33.61	43.22	49.42	52.83	55.96	62.43
56	6.20	12.39	15.38	18.64	24.57	33.75	42.93	48.85	52.12	55.11	61.29
57	-1.98	5.65	9.34	13.37	20.67	32.00	43.33	50.64	54.66	58.36	65.99
58	-5.45	2.84	6.86	11.23	19.17	31.47	43.78	51.72	56.09	60.11	68.40
59	-11.49	-2.06	2.51	7.49	16.52	30.52	44.53	53.56	58.53	63.10	72.53
60	-1.61	5.86	9.48	13.42	20.57	31.65	42.74	49.89	53.82	57.44	64.91
61	-6.79	1.54	5.58	9.97	17.95	30.31	42.68	50.66	55.05	59.09	67.42
62	-5.90	1.93	5.72	9.85	17.34	28.96	40.57	48.07	52.19	55.98	63.81
63	-4.45	2.44	5.97	9.81	16.79	27.61	38.43	45.41	49.26	52.79	60.00
64	-3.95	2.83	6.12	9.69	16.19	26.26	36.33	42.83	46.41	49.69	56.48
65	-3.05	3.23	6.28	9.59	15.60	24.92	34.24	40.25	43.56	46.60	52.88
66	-2.14	3.63	6.43	9.47	15.00	23.57	32.14	37.67	40.71	43.51	49.28
67	-1.23	4.02	6.58	9.35	14.40	22.22	30.04	35.08	37.86	40.41	45.68
68	-0.21	4.52	6.82	9.31	13.84	20.87	27.90	32.44	34.93	37.23	41.96
69	0.68	4.91	6.96	9.19	13.24	19.52	25.80	29.85	32.08	34.13	38.36
70	1.58	5.30	7.11	9.07	12.64	18.17	23.70	27.27	29.24	31.04	34.77

TABLE 5.7. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

JULY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-5.39	-3.93	-3.03	-2.26	-1.76	1.56	3.87	5.37	6.13	6.94	9.31
1	-10.65	-7.96	-6.65	-5.23	-4.66	1.34	5.34	7.32	8.34	10.65	17.34
2	-11.12	-8.54	-7.28	-5.32	-4.44	.40	4.24	6.71	7.67	9.33	11.31
3	-11.41	-8.84	-7.59	-5.23	-3.77	.06	3.88	6.34	7.70	8.95	11.52
4	-12.37	-9.61	-8.29	-5.32	-4.13	-.09	4.00	6.64	8.03	9.43	12.13
5	-13.13	-10.23	-8.87	-7.31	-4.54	-.24	4.06	6.83	8.35	9.75	12.65
6	-13.89	-10.83	-9.34	-7.73	-4.71	-.24	4.31	7.24	8.36	10.34	13.41
7	-13.82	-10.74	-9.25	-7.62	-4.68	-.11	4.46	7.41	8.32	10.53	13.60
8	-14.30	-11.11	-9.57	-7.30	-4.85	-.13	4.60	7.64	8.32	10.36	14.04
9	-15.59	-12.12	-10.44	-8.61	-5.29	-.14	5.01	8.33	10.16	11.84	15.31
10	-17.13	-13.35	-11.52	-9.53	-5.92	-.31	5.23	8.91	10.30	12.73	15.50
11	-19.44	-15.19	-13.13	-10.80	-6.81	-.50	5.81	9.88	12.12	14.18	18.43
12	-22.23	-17.38	-15.04	-12.43	-7.95	-.66	6.53	11.17	13.72	16.07	20.91
13	-24.72	-19.39	-16.81	-14.00	-8.89	-.98	6.94	12.04	14.05	17.44	22.77
14	-22.08	-17.32	-15.01	-12.50	-7.34	-.37	6.20	10.76	13.27	15.59	20.34
15	-15.55	-11.98	-10.26	-8.38	-4.97	.33	5.62	9.03	10.31	12.63	16.20
16	-9.65	-7.11	-5.87	-4.53	-2.10	1.68	5.45	7.89	9.23	10.46	13.00
17	-6.35	-4.24	-3.21	-2.10	-.08	3.06	6.20	9.22	9.34	10.36	12.47
18	-3.56	-1.62	-.68	.34	2.20	5.08	7.96	9.81	10.33	11.77	11.71
19	-.77	.94	1.77	2.68	4.32	6.87	9.41	11.06	11.96	12.79	14.51
20	-1.10	1.86	2.81	3.84	5.71	9.62	11.53	13.40	14.43	15.34	17.34
21	-.28	2.08	3.23	4.48	6.74	10.25	13.77	16.07	17.28	18.42	20.79
22	.80	3.19	4.34	5.60	7.88	11.41	14.95	17.23	18.43	19.64	22.02
23	2.25	4.49	5.57	6.75	8.89	12.21	15.53	17.67	18.85	19.94	22.17
24	3.11	5.32	6.39	7.55	9.67	12.35	16.23	18.34	19.51	20.58	22.79
25	3.24	5.50	6.60	7.79	9.95	11.71	16.66	18.83	20.02	21.11	23.37
26	1.93	4.56	5.94	7.23	3.75	13.66	17.57	20.10	21.43	22.76	25.40
27	1.17	4.17	5.52	6.99	9.66	13.81	17.96	20.63	22.10	23.45	26.25
28	2.24	4.80	6.04	7.39	9.85	13.65	17.46	19.91	21.26	22.50	25.06
29	3.64	6.23	7.40	8.84	11.32	15.17	19.01	21.49	22.86	24.11	26.70
30	3.99	6.41	7.78	9.27	11.97	16.16	20.35	23.05	24.34	25.90	28.73
31	4.05	6.87	8.24	9.72	12.43	16.62	20.80	23.51	24.99	26.36	29.18
32	4.51	7.40	8.81	10.34	13.11	17.81	21.72	24.49	26.02	27.42	30.32
33	2.96	6.25	7.84	9.58	12.73	17.62	22.50	25.65	27.39	28.98	32.27
34	2.80	6.21	7.87	9.67	12.94	18.01	23.08	26.35	28.15	29.80	33.22
35	3.04	6.71	8.49	10.42	13.94	19.39	24.83	28.35	30.28	32.06	35.73
36	5.04	8.42	10.05	11.83	15.07	20.08	25.09	28.33	30.11	31.74	35.12
37	5.69	9.03	10.64	12.40	15.59	20.54	25.50	28.69	30.45	32.06	35.40
38	1.51	6.05	8.26	10.65	15.00	21.75	28.49	32.85	35.24	37.44	41.99
39	6.31	10.07	11.89	13.87	17.46	23.04	28.62	32.21	34.19	36.01	39.77
40	8.50	12.01	13.71	15.56	18.92	24.14	29.35	32.71	34.56	36.26	39.77
41	6.31	10.47	12.49	14.68	18.67	24.84	31.02	35.00	37.20	39.21	43.38
42	8.46	12.42	14.33	16.42	20.21	26.09	31.97	35.76	37.95	39.77	43.73
43	9.11	13.35	15.41	17.65	21.71	28.01	34.32	38.38	40.62	42.68	46.92
44	10.45	14.92	17.09	19.45	23.74	30.39	37.04	41.33	43.69	45.86	50.34
45	9.55	14.79	17.32	20.08	25.09	32.85	40.62	45.63	48.39	50.92	56.16
46	12.34	17.44	19.92	22.61	27.50	35.08	42.66	47.55	50.25	52.72	57.83
47	12.90	18.24	20.82	23.64	28.74	36.66	44.59	49.69	52.51	55.09	60.43
48	13.36	18.81	21.45	24.32	29.54	37.63	45.72	50.94	53.81	56.45	61.90
49	15.64	20.86	23.39	26.14	31.13	38.88	46.62	51.62	54.37	56.90	62.11
50	16.52	21.69	24.20	26.92	31.87	39.54	47.21	52.16	54.88	57.39	62.56
51	14.98	20.49	23.17	26.07	31.35	39.54	47.72	53.00	55.91	58.58	64.09
52	11.12	17.45	20.51	23.84	29.89	39.28	48.66	54.72	58.05	61.11	67.43
53	8.02	14.97	18.34	22.00	28.65	38.97	49.29	55.94	59.60	62.97	69.92
54	5.40	12.87	16.48	20.41	27.56	38.63	49.71	56.85	60.78	64.40	71.86
55	.84	9.31	13.41	17.87	25.98	38.55	51.11	59.22	63.68	67.78	76.25
56	-2.44	6.52	10.87	15.59	24.17	37.48	50.79	59.37	64.10	68.44	77.41
57	-2.47	6.58	10.97	15.74	24.40	37.83	51.27	59.93	64.70	69.08	78.13
58	-4.28	4.74	9.11	13.86	22.49	35.88	49.27	57.90	62.65	67.02	76.04
59	-7.51	1.64	6.27	11.30	20.45	34.63	48.81	57.95	62.99	67.61	77.17
60	-15.62	-4.14	1.42	7.47	18.46	35.49	52.53	63.52	69.57	75.13	86.61
61	-8.64	-.94	5.58	10.62	19.79	34.00	48.22	57.38	62.43	67.07	76.65
62	-7.34	1.61	5.94	10.66	19.22	32.50	45.78	54.34	59.06	63.39	72.34
63	-6.20	2.15	6.20	10.60	18.60	31.01	43.41	51.41	55.81	59.86	68.22
64	-4.92	2.81	6.55	10.63	18.03	29.50	40.97	48.37	52.45	56.19	63.92
65	-3.77	3.37	6.82	10.58	17.42	28.01	38.60	45.43	49.19	52.65	59.79
66	-2.51	4.00	7.16	10.59	16.83	26.50	36.17	42.41	45.85	49.00	55.52
67	-1.26	4.64	7.50	10.61	16.25	25.01	33.77	39.41	42.52	45.38	51.28
68	-.35	5.01	7.60	10.43	15.55	23.50	31.45	36.58	39.40	42.00	47.35
69	1.00	5.72	8.01	10.49	15.01	22.01	29.02	33.53	36.02	38.30	43.02
70	2.14	6.27	8.27	10.44	14.39	20.51	26.63	30.57	32.75	34.74	38.87

TABLE 5.8. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS

45 DEGREE FLIGHT AZIMUTH

AUGUST

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-5.33	-3.94	-3.26	-2.53	-1.20	.87	2.94	4.27	5.00	5.68	7.07
1	-9.91	-7.42	-6.21	-4.83	-2.50	1.20	4.91	7.30	8.61	9.82	12.32
2	-9.85	-7.53	-6.40	-5.10	-2.95	.49	3.94	6.17	7.39	8.52	10.84
3	-10.52	-8.10	-6.93	-5.66	-3.34	.25	3.34	6.15	7.43	8.60	11.01
4	-10.82	-8.34	-7.13	-5.83	-3.45	.23	3.92	6.29	7.60	8.80	11.28
5	-11.88	-9.19	-7.89	-6.47	-3.90	.09	4.08	6.66	9.03	9.38	12.07
6	-12.00	-9.33	-8.02	-6.60	-4.01	.00	4.01	6.60	9.02	9.33	12.04
7	-12.26	-9.50	-8.16	-6.71	-4.06	.04	4.13	6.78	9.23	9.57	12.33
8	-12.31	-10.35	-8.92	-7.36	-4.53	-.15	4.24	7.07	9.62	10.06	13.01
9	-14.13	-11.01	-9.50	-7.96	-4.87	-.24	4.33	7.37	9.02	10.53	13.65
10	-16.11	-12.62	-10.92	-9.08	-5.73	-.54	4.65	8.00	9.85	11.54	15.04
11	-19.59	-14.56	-12.61	-10.40	-6.64	-.66	5.32	9.18	11.30	13.25	17.29
12	-21.30	-16.74	-14.52	-12.12	-7.75	-.97	5.81	10.18	12.59	14.80	19.36
13	-22.75	-18.00	-15.70	-13.19	-8.65	-1.59	5.46	10.01	12.52	14.82	19.57
14	-19.45	-15.40	-13.47	-11.29	-7.41	-1.39	4.63	8.51	10.65	12.61	16.67
15	-13.90	-10.80	-9.30	-7.66	-4.69	-.09	4.53	7.50	9.14	10.64	13.75
16	-8.87	-6.55	-5.43	-4.21	-1.99	1.46	4.90	7.12	8.34	9.47	11.79
17	-5.80	-3.75	-2.76	-1.66	.23	3.32	6.36	9.32	9.40	10.39	12.44
18	-3.53	-1.58	-.64	.39	2.25	5.14	8.07	9.89	10.92	11.86	13.81
19	-.82	.94	1.79	2.71	4.39	6.99	9.60	11.28	12.20	13.05	14.80
20	2.24	2.18	3.12	4.14	5.99	8.86	11.73	13.58	14.60	15.54	17.48
21	1.02	3.09	4.10	5.13	7.18	10.26	13.34	15.33	16.42	17.43	19.50
22	1.74	3.91	4.95	6.10	8.17	11.38	14.60	16.67	17.81	18.86	21.03
23	2.99	4.97	5.99	7.08	9.07	12.16	15.25	17.24	18.34	19.35	21.43
24	3.31	5.44	6.47	7.59	9.63	12.78	15.94	17.98	19.10	20.13	22.26
25	3.15	5.42	6.52	7.72	9.89	13.27	16.64	18.81	20.01	21.11	23.38
26	2.34	4.79	5.98	7.28	9.63	13.28	16.93	19.28	20.58	21.77	24.22
27	2.21	4.76	5.99	7.34	9.78	13.57	17.36	19.80	21.14	22.38	24.93
28	4.59	6.79	7.85	9.01	11.11	14.37	17.62	19.72	20.88	22.94	26.14
29	3.67	6.22	7.46	8.81	11.25	15.04	18.83	21.28	22.63	23.86	26.42
30	3.95	6.22	7.92	9.33	11.89	15.86	19.83	22.39	23.80	25.09	27.77
31	4.39	7.17	8.52	9.99	12.65	16.78	20.91	23.57	25.04	26.38	29.16
32	2.31	5.60	7.19	8.93	12.08	16.97	21.85	25.00	26.74	28.33	31.63
33	3.43	6.84	7.90	9.49	12.38	16.86	21.33	24.22	25.81	27.27	30.29
34	1.33	6.87	8.58	8.44	11.82	17.07	22.31	25.70	27.56	29.27	32.80
35	-1.15	3.72	5.59	7.63	11.33	17.08	22.82	26.52	28.56	30.43	34.30
36	-1.68	3.46	5.40	7.66	11.62	17.77	23.92	27.89	30.08	32.08	36.23
37	-.83	3.45	6.39	8.51	12.35	18.31	24.28	28.12	30.24	32.18	36.20
38	-2.39	2.88	4.84	7.41	12.07	19.30	26.53	31.20	33.76	36.12	41.00
39	-1.39	4.03	6.18	8.51	12.74	19.30	25.87	30.10	32.43	34.57	38.99
40	-2.64	2.31	4.70	7.31	12.04	19.39	26.73	31.46	34.07	36.46	41.41
41	-2.01	2.91	5.30	7.89	12.60	19.91	27.22	31.93	34.53	36.91	41.84
42	-2.73	2.56	5.12	7.90	12.96	20.81	28.66	33.72	36.50	39.06	44.35
43	1.83	6.59	8.90	11.41	15.97	23.04	30.11	34.68	37.19	39.49	44.26
44	-2.12	3.84	6.73	9.87	15.57	24.42	33.27	38.97	42.12	45.00	50.96
45	-1.16	4.96	7.92	11.15	17.00	26.08	35.16	41.02	44.24	47.20	53.32
46	-2.35	4.27	7.48	10.96	17.30	27.12	36.95	43.28	46.77	49.98	56.60
47	-5.38	2.11	5.74	9.69	16.86	27.98	39.10	46.28	50.22	53.85	61.35
48	-2.57	4.25	7.56	11.16	17.69	27.82	37.95	44.48	48.08	51.39	58.21
49	-2.69	3.94	7.15	10.65	17.00	26.84	36.69	43.04	46.54	49.75	56.38
50	-3.71	3.09	6.39	9.97	16.49	26.59	36.69	43.20	46.79	50.09	56.89
51	-4.34	2.74	6.17	9.90	16.68	27.19	37.70	44.48	48.21	51.64	58.72
52	-3.58	3.36	6.71	10.37	17.01	27.30	37.60	44.24	47.89	51.25	58.19
53	-6.55	.68	4.19	9.01	14.93	25.68	36.42	43.35	47.17	50.67	57.91
54	-11.94	-3.74	.23	4.55	12.40	24.57	36.75	44.60	48.92	52.89	61.09
55	-18.89	-9.43	-4.84	.14	9.20	23.25	37.30	46.36	51.34	55.93	65.39
56	-22.07	-12.54	-7.92	-2.89	6.24	20.39	34.55	43.67	48.70	53.32	62.86
57	-26.19	-18.07	-11.17	-5.84	3.85	18.87	33.88	43.57	48.90	53.80	63.92
58	-34.91	-23.07	-17.33	-11.08	.26	17.84	35.43	46.77	53.01	58.75	70.60
59	-39.21	-27.03	-21.13	-14.71	-3.04	15.04	33.12	44.79	51.21	57.11	69.29
60	-40.64	-27.53	-21.18	-14.28	-1.73	17.72	37.17	49.72	56.63	62.97	76.08
61	-34.40	-22.81	-17.19	-11.08	.02	17.23	34.44	45.54	51.65	57.27	68.87
62	-31.79	-20.49	-15.61	-9.87	.56	16.74	32.92	43.36	49.10	54.38	65.28
63	-29.11	-18.93	-13.99	-8.62	1.13	16.25	31.37	41.12	46.49	51.43	61.61
64	-26.54	-17.04	-12.44	-7.43	1.66	15.76	29.86	38.95	43.96	48.56	58.06
65	-24.41	-15.50	-11.18	-6.49	2.04	15.27	28.49	37.02	41.71	46.03	54.94
66	-22.15	-13.86	-9.84	-5.48	2.46	14.76	27.07	35.00	39.37	43.39	51.68
67	-20.09	-12.37	-8.63	-4.56	2.82	14.28	25.73	33.12	37.18	40.92	48.64
68	-18.29	-11.09	-7.60	-3.80	3.09	13.78	24.47	31.37	35.16	38.65	45.85
69	-16.88	-10.10	-6.82	-3.25	3.24	13.29	23.35	29.84	33.41	36.69	43.47
70	-15.76	-9.35	-6.24	-2.86	3.28	12.80	22.32	28.46	31.84	34.94	41.36

TABLE 5.9. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

SEPTEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-6.66	-4.95	-4.12	-3.22	-1.58	.95	3.49	5.13	6.03	6.96	8.57
1	-12.48	-9.29	-7.74	-6.06	-3.00	1.74	6.48	9.59	11.22	12.77	15.95
2	-13.44	-10.24	-8.68	-7.00	-3.93	.83	5.58	8.65	10.34	11.89	15.10
3	-13.98	-10.78	-9.23	-7.55	-4.43	.25	5.00	9.06	9.74	11.29	14.41
4	-13.92	-10.83	-9.37	-7.65	-4.73	-1.13	4.46	7.42	9.05	10.56	13.65
5	-14.53	-11.37	-9.84	-8.17	-5.15	-1.45	4.24	7.27	8.34	10.47	13.63
6	-15.40	-12.16	-10.56	-8.81	-5.64	-1.73	4.19	7.36	9.10	10.71	14.02
7	-16.14	-12.73	-11.08	-9.29	-6.02	-1.96	4.10	7.36	9.16	10.91	14.22
8	-17.15	-13.63	-11.92	-10.07	-6.70	-1.47	3.76	7.13	8.58	10.69	14.21
9	-18.36	-15.11	-13.29	-11.31	-7.72	-2.14	3.43	7.03	9.50	10.92	14.53
10	-22.20	-17.90	-15.81	-13.55	-9.43	-3.04	3.35	7.46	9.73	11.92	16.12
11	-25.83	-20.91	-18.53	-15.94	-11.27	-3.92	3.39	8.03	10.69	13.06	17.99
12	-29.71	-24.18	-21.50	-18.59	-13.30	-5.09	3.11	8.41	11.22	14.00	19.53
13	-32.25	-26.28	-23.39	-20.23	-14.51	-5.64	3.24	8.76	12.11	15.01	20.99
14	-30.24	-25.16	-22.36	-19.32	-13.78	-5.20	3.37	8.91	11.95	14.75	20.51
15	-24.75	-19.95	-17.64	-15.12	-10.53	-3.42	3.69	8.27	10.80	13.12	17.90
16	-16.60	-13.19	-11.54	-9.74	-6.48	-1.41	3.65	8.21	10.36	12.77	17.90
17	-12.27	-9.39	-7.99	-6.47	-3.71	.57	4.84	7.60	9.12	10.52	13.40
18	-8.40	-6.01	-4.85	-3.59	-1.30	2.26	5.81	8.10	9.26	10.52	12.90
19	-5.49	-3.39	-2.37	-1.26	.76	3.99	7.02	9.03	10.14	11.17	13.27
20	-3.84	-1.76	-.75	.34	2.34	5.42	8.51	10.50	11.60	12.61	14.69
21	-2.40	-.35	.64	1.72	3.68	6.72	9.76	11.72	12.30	13.79	15.34
22	-1.62	.45	1.44	2.53	4.50	7.57	10.63	12.60	13.69	14.69	16.75
23	-1.13	.95	1.96	3.06	5.06	8.15	11.25	13.24	14.34	15.35	17.44
24	-1.14	.99	2.03	3.15	5.20	8.37	11.53	13.52	14.70	15.74	17.67
25	-1.76	.67	1.70	2.93	5.16	8.63	12.09	14.32	15.55	16.69	19.21
26	-2.34	.12	1.32	2.61	4.97	8.63	12.28	14.54	15.94	17.13	19.59
27	-4.18	-1.29	.10	1.61	4.36	8.61	12.87	15.61	17.13	18.52	21.38
28	-2.83	.38	1.55	2.82	5.13	8.71	12.29	14.60	15.87	17.04	19.45
29	-2.91	-.20	1.12	2.55	5.14	9.17	13.20	15.79	17.22	18.54	21.25
30	-3.24	-2.07	-.93	1.14	4.18	8.89	13.60	16.63	18.31	19.84	23.01
31	-4.88	-1.27	.24	1.88	4.86	9.47	14.09	17.07	18.71	20.22	23.33
32	-5.55	-2.17	-.53	1.25	4.49	9.51	14.54	17.77	19.56	21.20	24.58
33	-5.50	-2.17	-.55	1.21	4.40	9.34	14.29	17.48	19.24	20.85	24.18
34	-8.10	-4.06	-7.02	-1.01	2.65	8.32	14.00	17.66	19.67	21.53	25.35
35	-11.21	-6.97	-4.91	-2.67	1.39	7.68	13.98	18.04	20.28	22.33	25.57
36	-12.21	-7.88	-5.74	-3.41	.81	7.37	13.92	18.15	20.47	22.61	27.03
37	-11.78	-7.77	-5.39	-3.12	1.01	7.40	13.80	17.92	20.19	22.28	26.58
38	-12.13	-7.73	-5.87	-3.23	1.04	7.65	14.26	18.53	20.87	23.03	27.49
39	-13.25	-8.89	-6.19	-3.68	.87	7.93	14.99	19.58	22.05	24.36	29.11
40	-13.97	-9.03	-6.63	-4.14	.49	7.67	14.85	19.47	22.02	24.37	29.20
41	-16.85	-11.50	-8.91	-6.09	.97	6.97	14.91	20.03	22.65	25.44	30.78
42	-18.73	-14.90	-10.19	-7.16	-1.65	6.99	15.43	20.94	23.97	26.76	32.51
43	-18.53	-12.40	-9.43	-6.20	-.33	8.76	17.86	23.73	26.96	29.93	36.06
44	-19.50	-13.02	-9.49	-6.47	-.27	9.34	18.95	25.14	28.56	31.69	39.17
45	-20.70	-14.15	-10.98	-7.52	-1.25	8.48	18.21	24.48	27.94	31.11	37.67
46	-18.95	-12.74	-9.74	-6.47	-.53	8.68	17.89	23.82	27.09	30.10	36.30
47	-17.82	-11.87	-8.99	-5.86	-.17	8.66	17.48	23.18	26.31	29.19	35.14
48	-17.59	-11.72	-8.88	-5.78	-.16	8.55	17.27	22.89	25.98	28.83	34.70
49	-17.07	-11.32	-8.53	-5.49	.02	8.56	17.10	22.61	25.65	28.43	34.19
50	-19.68	-13.66	-10.75	-7.53	-1.43	7.10	16.02	21.78	24.95	27.95	33.88
51	-21.86	-15.38	-12.24	-8.82	-2.61	7.02	16.65	22.85	26.27	29.41	35.90
52	-22.27	-15.44	-12.13	-8.53	-1.99	8.15	18.29	24.83	28.43	31.74	38.57
53	-22.69	-15.75	-12.39	-8.74	-2.09	8.20	18.50	25.14	28.80	32.16	39.10
54	-26.15	-18.81	-15.26	-11.40	-4.38	6.50	17.38	24.40	28.27	31.82	39.15
55	-30.07	-22.22	-18.41	-14.27	-6.75	4.91	16.57	24.09	28.23	32.03	39.89
56	-30.09	-22.14	-18.29	-14.11	-6.50	5.29	17.08	24.68	28.87	32.72	40.66
57	-32.58	-24.11	-20.02	-15.57	-7.48	5.06	17.61	25.69	30.15	34.24	42.69
58	-37.32	-28.16	-23.71	-18.88	-10.10	3.51	17.12	25.89	30.73	35.17	44.34
59	-30.63	-22.93	-19.21	-15.15	-7.78	3.64	15.06	22.43	26.48	30.21	37.91
60	-32.88	-33.32	-28.73	-23.79	-14.70	-.61	13.43	22.57	27.58	32.19	41.67
61	-41.22	-32.08	-27.65	-22.83	-14.08	-.51	13.06	21.81	26.63	31.06	40.21
62	-30.13	-31.26	-26.94	-22.23	-13.68	-.42	12.83	21.38	26.09	30.41	39.34
63	-39.43	-30.65	-26.40	-21.77	-13.37	-.33	12.70	21.11	25.73	29.99	38.77
64	-38.40	-29.83	-25.68	-21.17	-12.96	-.25	12.47	20.67	25.19	29.34	37.90
65	-37.56	-29.16	-25.09	-20.67	-12.63	-.16	12.30	20.34	24.77	28.84	37.23
66	-36.71	-28.98	-24.90	-20.16	-12.28	-.07	12.14	20.02	24.36	28.34	36.57
67	-35.68	-27.65	-23.78	-19.56	-11.88	.01	11.91	19.58	23.81	27.69	35.71
68	-34.32	-27.05	-23.24	-19.10	-11.57	.11	11.78	19.31	23.46	27.27	35.13
69	-33.89	-26.23	-22.58	-18.49	-11.17	.19	11.55	18.88	22.91	26.62	34.27
70	-33.84	-25.56	-21.93	-17.99	-10.82	.28	11.39	18.55	22.50	26.12	33.60

TABLE 5.10. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

OCTOBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.42	-7.36	-6.37	-5.29	-3.32	-2.28	2.77	4.74	5.32	6.91	8.87
1	-14.31	-11.08	-9.51	-7.80	-4.70	-1.0	4.90	8.00	9.71	11.27	14.51
2	-15.12	-11.93	-10.39	-8.71	-5.65	-1.32	3.81	6.87	8.55	10.09	13.29
3	-16.95	-13.57	-11.97	-10.15	-6.91	-1.88	3.14	6.38	8.17	9.81	13.19
4	-18.81	-15.23	-13.47	-11.61	-8.19	-2.87	2.44	5.87	7.75	9.49	13.07
5	-20.76	-17.01	-15.20	-13.22	-9.64	-4.09	1.47	5.05	7.03	8.84	12.58
6	-23.61	-19.48	-17.43	-15.30	-11.35	-5.23	.90	4.85	7.03	9.03	13.16
7	-27.79	-23.04	-20.74	-18.23	-13.68	-6.63	.42	4.97	7.47	9.77	14.52
8	-32.42	-26.98	-24.35	-21.43	-16.27	-8.20	-1.13	5.07	7.94	10.57	16.01
9	-38.19	-31.81	-28.72	-25.35	-19.24	-9.77	-2.29	5.82	9.19	12.26	18.66
10	-44.04	-36.69	-33.10	-29.21	-22.13	-11.15	-1.17	6.90	10.30	14.38	21.79
11	-50.22	-41.83	-37.76	-33.34	-25.30	-12.84	-1.32	7.66	12.08	16.15	24.54
12	-52.56	-43.93	-39.75	-35.19	-26.93	-14.11	-1.30	6.97	11.52	15.70	24.33
13	-50.49	-42.46	-38.58	-34.34	-26.66	-14.74	-2.83	4.86	9.09	12.94	21.01
14	-49.82	-41.93	-38.56	-34.89	-24.23	-13.91	-3.58	3.08	6.74	10.11	17.07
15	-36.69	-31.05	-28.32	-25.35	-19.95	-11.59	-3.21	2.18	5.16	7.89	13.52
16	-23.25	-23.81	-21.66	-19.32	-15.07	-9.49	-1.99	2.36	4.70	6.85	11.23
17	-20.70	-17.19	-15.48	-13.63	-10.27	-6.66	-1.15	3.51	5.36	7.06	10.57
18	-19.99	-12.17	-10.80	-9.31	-6.61	-3.82	-1.77	4.48	5.97	7.33	10.16
19	-11.48	-8.99	-7.78	-6.46	-4.07	-2.77	-3.34	5.73	7.04	8.25	10.75
20	-9.43	-7.07	-5.93	-4.69	-2.44	-1.05	4.55	6.90	9.04	9.18	11.54
21	-8.29	-6.06	-4.98	-3.80	-1.67	-1.65	4.95	7.10	8.27	9.35	11.59
22	-8.69	-6.29	-5.13	-3.87	-1.58	1.38	5.53	7.83	9.09	10.25	12.64
23	-8.55	-6.10	-4.91	-3.62	-1.28	2.35	5.99	8.33	9.62	10.81	13.26
24	-9.10	-6.68	-5.41	-4.03	-1.52	2.37	6.26	8.77	10.15	11.42	14.04
25	-10.22	-7.47	-6.14	-4.69	-2.06	2.02	6.10	8.74	10.19	11.52	14.27
26	-11.82	-8.87	-7.44	-5.83	-3.07	1.31	5.63	8.51	10.06	11.49	14.44
27	-13.66	-10.48	-8.94	-7.26	-4.22	.51	5.23	8.28	9.96	11.50	14.68
28	-11.82	-8.83	-7.38	-5.80	-2.94	1.80	5.94	8.81	10.38	11.83	14.82
29	-14.12	-10.84	-9.25	-7.53	-4.39	.48	5.35	8.48	10.21	11.80	15.08
30	-16.78	-13.17	-11.42	-9.52	-6.07	-1.72	4.63	8.08	9.98	11.73	15.33
31	-20.18	-15.94	-13.89	-11.66	-7.60	-1.32	4.97	9.02	11.26	13.31	17.54
32	-24.32	-19.46	-17.10	-14.54	-9.89	-2.67	4.54	9.19	11.75	14.11	18.97
33	-29.36	-23.81	-21.12	-18.20	-12.89	-4.65	3.59	8.90	11.83	14.51	20.06
34	-34.50	-28.45	-25.52	-22.34	-16.55	-7.57	1.40	7.19	10.38	13.31	19.36
35	-37.54	-31.28	-28.24	-24.94	-18.95	-9.66	-1.37	5.63	11.96	14.22	19.22
36	-41.47	-34.64	-31.34	-27.74	-21.21	-11.04	-1.94	5.59	9.19	12.49	19.32
37	-45.18	-37.60	-33.93	-29.94	-22.68	-11.43	-1.19	7.07	11.06	14.73	22.31
38	-48.27	-40.30	-36.44	-32.24	-24.61	-12.78	-1.95	6.68	10.88	14.74	22.71
39	-52.69	-43.97	-39.74	-35.14	-26.79	-13.84	-1.89	7.46	12.06	16.22	25.01
40	-54.31	-45.53	-41.28	-36.65	-28.24	-15.20	-2.17	6.24	10.87	15.42	23.91
41	-56.83	-47.62	-43.16	-38.31	-29.49	-15.82	-2.15	6.67	11.53	15.99	25.20
42	-58.01	-48.65	-44.12	-39.19	-30.23	-16.34	-2.45	6.51	11.44	15.97	25.33
43	-59.86	-50.21	-45.54	-40.46	-31.22	-16.90	-2.59	6.65	11.73	16.40	26.05
44	-57.22	-48.13	-43.72	-38.93	-30.23	-16.73	-3.23	5.47	10.27	14.67	23.76
45	-57.51	-48.52	-44.17	-39.43	-30.83	-17.50	-4.16	4.44	9.18	13.53	22.52
46	-58.16	-49.13	-44.76	-40.01	-31.37	-17.98	-4.58	4.06	8.81	13.18	22.21
47	-60.37	-50.99	-46.45	-41.51	-32.53	-18.61	-4.69	4.29	9.23	13.77	23.15
48	-59.71	-50.62	-46.23	-41.44	-32.74	-19.26	-5.78	2.91	7.70	12.10	21.18
49	-60.10	-51.17	-46.85	-42.14	-33.59	-20.34	-7.09	1.46	6.16	10.49	19.41
50	-59.39	-50.99	-46.92	-42.49	-34.44	-21.96	-9.48	-1.44	3.00	7.07	15.47
51	-58.84	-50.50	-46.45	-42.06	-34.07	-21.68	-9.29	-1.31	3.09	7.13	15.48
52	-60.09	-51.75	-47.71	-43.32	-35.33	-22.95	-10.57	-2.59	1.81	5.85	14.19
53	-61.15	-52.74	-48.67	-44.24	-36.18	-23.70	-11.21	-3.16	1.27	5.34	13.75
54	-61.45	-53.21	-49.22	-44.88	-36.99	-24.77	-12.54	-4.65	-1.31	3.68	11.92
55	-63.83	-55.20	-51.03	-46.48	-38.22	-25.42	-12.62	-4.37	-1.8	4.35	12.98
56	-65.09	-56.34	-52.11	-47.50	-39.13	-26.15	-13.17	-4.80	-1.19	4.04	12.79
57	-70.50	-60.91	-56.26	-51.21	-42.02	-27.79	-13.55	-4.37	.69	5.33	14.92
58	-74.05	-63.49	-58.38	-52.81	-42.70	-27.03	-11.35	-1.24	4.32	9.44	20.00
59	-73.18	-62.60	-57.48	-51.91	-41.78	-26.08	-10.39	-1.26	5.31	10.43	21.01
60	-77.09	-65.67	-60.14	-54.11	-43.18	-26.22	-9.26	1.68	7.70	13.23	24.65
61	-75.45	-64.12	-58.63	-52.66	-41.81	-24.98	-8.16	2.69	8.67	14.15	25.49
62	-73.27	-62.15	-56.76	-50.90	-40.25	-23.74	-7.24	3.41	9.27	14.66	25.78
63	-70.80	-59.95	-54.70	-48.99	-38.60	-22.51	-6.41	3.97	9.69	14.94	25.79
64	-68.54	-57.93	-52.79	-47.19	-37.03	-21.28	-5.52	4.84	10.23	15.37	25.99
65	-66.37	-55.97	-50.93	-45.44	-35.48	-20.04	-4.60	5.36	10.85	15.89	26.29
66	-64.12	-53.94	-49.01	-43.65	-33.91	-18.80	-3.70	6.05	11.41	16.40	26.52
67	-61.88	-51.93	-47.11	-41.86	-32.34	-17.56	-2.79	6.74	11.98	16.80	26.75
68	-59.47	-49.78	-45.09	-39.98	-30.71	-16.33	-1.96	7.32	12.42	17.11	26.80
69	-57.32	-47.84	-43.25	-38.25	-29.17	-15.09	-1.01	8.07	13.07	17.55	27.14
70	-55.13	-45.86	-41.37	-36.49	-27.62	-13.86	-1.10	8.77	13.65	18.14	27.41

TABLE 5.11. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

NOVEMBER

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.43	-8.25	-7.20	-6.05	-5.87	-5.74	2.50	4.56	5.72	6.78	8.96
1	-15.95	-13.22	-11.41	-9.44	-9.07	-8.93	3.22	8.79	10.75	12.57	16.30
2	-18.87	-15.05	-13.21	-11.20	-7.54	-7.38	3.78	7.43	9.44	11.29	15.11
3	-21.45	-17.47	-15.56	-13.45	-9.64	-9.74	2.15	5.77	9.07	13.30	17.37
4	-24.03	-19.86	-17.84	-15.65	-11.60	-9.47	.71	4.70	6.90	8.92	17.08
5	-27.44	-22.73	-20.74	-18.35	-14.04	-12.34	-1.64	3.63	5.06	3.25	12.77
6	-31.35	-26.41	-24.01	-21.01	-16.67	-15.33	-1.59	2.74	5.74	7.74	12.68
7	-35.33	-29.95	-27.33	-24.43	-19.33	-18.33	-3.33	1.82	4.67	7.28	12.65
8	-40.32	-34.31	-31.40	-28.25	-22.47	-22.47	-12.55	4.62	1.13	4.67	7.22
9	-44.26	-37.82	-34.70	-31.30	-25.13	-25.13	-15.57	-5.01	.16	3.56	6.68
10	-49.12	-42.06	-38.04	-34.01	-28.15	-28.15	-17.66	-7.19	-4.42	3.21	6.73
11	-53.76	-46.14	-42.40	-38.40	-31.13	-31.13	-19.32	-3.51	-1.21	2.01	6.50
12	-55.86	-48.15	-44.42	-40.76	-32.59	-32.59	-21.33	-10.60	-2.71	1.30	5.09
13	-58.32	-50.99	-47.44	-43.57	-33.51	-33.51	-21.67	-10.79	-3.76	.11	3.66
14	-60.32	-52.57	-49.44	-45.04	-35.87	-35.87	-20.79	-10.72	-4.19	-1.15	1.98
15	-61.15	-55.82	-53.27	-50.42	-35.31	-35.31	-17.73	-3.43	-4.37	-1.56	1.03
16	-65.12	-58.42	-55.14	-52.06	-38.16	-38.16	-14.18	-7.21	-2.71	-2.73	2.05
17	-70.14	-62.79	-59.69	-56.39	-41.30	-41.30	-10.75	-4.29	-1.11	2.13	4.29
18	-73.67	-67.99	-64.21	-60.27	-44.75	-44.75	-7.30	-1.84	1.68	3.62	5.40
19	-78.60	-73.77	-69.30	-65.30	-49.27	-49.27	-4.67	-0.07	2.90	4.52	6.07
20	-81.76	-78.86	-74.48	-70.48	-53.99	-53.99	-7.27	1.16	3.88	5.37	6.75
21	-84.34	-81.64	-77.34	-73.34	-58.33	-58.33	-2.33	1.69	4.26	5.53	6.99
22	-84.95	-82.08	-77.69	-73.69	-59.18	-59.18	-2.18	2.07	4.81	6.32	7.71
23	-85.82	-82.81	-78.36	-74.36	-60.90	-60.90	-7.43	2.07	4.91	6.43	7.35
24	-87.78	-84.48	-80.83	-76.83	-63.99	-63.99	-7.09	1.81	4.96	6.70	3.30
25	-88.53	-85.85	-82.08	-78.08	-66.63	-66.63	-4.18	1.27	4.78	6.72	8.50
26	-88.81	-86.96	-83.04	-79.04	-68.16	-68.16	-5.31	.56	4.34	6.42	8.34
27	-89.67	-87.95	-84.76	-80.76	-70.33	-70.33	-6.36	.35	4.67	7.05	9.24
28	-90.70	-89.94	-86.79	-82.79	-72.57	-72.57	-5.81	1.56	6.11	8.62	10.93
29	-90.88	-90.84	-87.10	-83.10	-74.66	-74.66	-7.21	.24	5.05	7.69	10.12
30	-91.82	-91.84	-88.94	-85.94	-76.13	-76.13	-8.29	-.44	4.62	7.41	9.97
31	-93.88	-93.86	-90.26	-86.26	-78.98	-78.98	-10.22	-2.46	2.54	5.29	7.82
32	-95.33	-95.33	-91.73	-87.73	-81.06	-81.06	-12.59	-5.01	-1.12	2.58	5.05
33	-96.54	-96.54	-93.77	-89.77	-83.42	-83.42	-14.85	-6.29	-.77	2.27	5.07
34	-98.51	-98.51	-95.38	-91.38	-85.24	-85.24	-17.11	-7.98	-2.09	1.15	4.13
35	-98.58	-98.58	-95.93	-91.93	-85.26	-85.26	-18.71	-9.16	-3.00	.39	3.50
36	-98.58	-98.58	-96.66	-92.66	-86.04	-86.04	-20.77	-10.49	-3.47	-.22	3.13
37	-98.58	-98.58	-97.45	-93.45	-86.61	-86.61	-21.78	-10.95	-3.96	-.11	3.42
38	-98.58	-98.58	-98.34	-94.34	-87.44	-87.44	-23.55	-12.66	-5.63	-1.76	1.79
39	-98.58	-98.58	-99.71	-95.71	-88.09	-88.09	-24.48	-12.87	-5.38	-1.25	2.54
40	-98.58	-98.58	-99.71	-95.71	-88.22	-88.22	-26.74	-15.26	-7.86	-3.79	-.04
41	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
42	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
43	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
44	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
45	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
46	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
47	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
48	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
49	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
50	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
51	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
52	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
53	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
54	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
55	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
56	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
57	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
58	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
59	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
60	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
61	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
62	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
63	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
64	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
65	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
66	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
67	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
68	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
69	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47
70	-98.58	-98.58	-99.71	-95.71	-88.63	-88.63	-27.46	-16.29	-9.08	-5.12	-1.47

TABLE 5.12. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
45 DEGREE FLIGHT AZIMUTH

DECEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.17	-8.92	-7.87	-6.64	-4.49	-1.15	2.20	4.35	5.54	6.63	8.88
1	-19.27	-15.03	-13.05	-10.70	-5.95	-2.64	5.57	9.53	11.79	13.81	18.00
2	-21.08	-16.90	-14.97	-12.71	-6.65	-2.74	3.30	7.32	9.40	11.49	15.61
3	-23.31	-19.69	-17.84	-15.42	-11.23	-5.11	1.15	5.12	7.42	9.46	13.69
4	-26.35	-22.51	-20.20	-18.02	-13.77	-7.18	-2.59	3.67	6.01	8.16	12.60
5	-31.36	-26.06	-23.07	-21.00	-16.21	-8.79	-1.36	3.43	5.67	7.49	13.50
6	-34.72	-29.36	-26.70	-24.54	-18.80	-10.84	-2.88	2.26	5.08	7.68	13.04
7	-38.99	-33.10	-30.25	-27.15	-21.52	-12.79	-4.05	1.57	4.67	7.52	13.40
8	-42.72	-36.42	-33.38	-30.06	-24.04	-14.70	-5.36	.66	3.98	7.02	13.31
9	-46.39	-41.72	-37.20	-34.07	-27.30	-16.30	-6.30	.47	4.19	7.62	14.69
10	-50.36	-46.46	-42.54	-38.35	-30.73	-18.92	-7.10	.52	4.71	8.57	16.53
11	-54.12	-49.72	-45.60	-41.23	-33.10	-20.73	-8.25	-.22	4.21	8.27	16.67
12	-60.80	-52.13	-47.91	-43.30	-35.06	-22.10	-9.22	-1.02	3.55	7.75	16.42
13	-57.47	-49.53	-45.37	-41.70	-34.13	-22.55	-10.71	-3.40	.73	4.63	12.37
14	-51.62	-44.92	-41.67	-38.14	-31.73	-21.76	-11.83	-5.42	-1.89	1.36	8.00
15	-45.99	-39.97	-37.10	-33.93	-28.33	-19.56	-10.73	-5.13	-2.01	.85	6.76
16	-39.91	-34.69	-32.15	-27.41	-24.40	-16.64	-9.68	-3.88	-1.12	1.41	6.64
17	-34.08	-29.43	-27.20	-24.74	-20.44	-13.02	-8.30	-2.40	.02	2.25	6.84
18	-27.89	-23.94	-22.07	-19.95	-16.17	-10.32	-4.46	-1.00	1.40	3.31	7.25
19	-22.44	-19.02	-17.37	-15.62	-12.33	-7.21	-2.13	1.15	2.95	4.61	8.03
20	-20.07	-16.76	-15.10	-13.41	-10.30	-5.42	-.63	2.62	4.35	5.95	9.24
21	-17.97	-14.97	-13.32	-11.33	-9.06	-4.30	-.15	2.73	4.31	5.76	8.77
22	-17.81	-14.86	-13.44	-11.05	-9.07	-4.70	-.32	2.40	4.05	5.47	8.42
23	-20.16	-16.91	-15.10	-13.42	-10.22	-5.25	-.23	2.32	4.68	6.31	9.65
24	-23.03	-19.72	-17.50	-15.52	-11.92	-6.34	-.76	2.84	4.82	6.64	10.40
25	-26.62	-22.35	-20.23	-18.03	-13.94	-7.60	-1.26	2.93	5.08	7.15	11.42
26	-30.65	-25.70	-23.30	-21.08	-15.94	-8.58	-1.27	3.51	6.13	8.53	13.48
27	-33.04	-27.70	-25.09	-22.25	-17.10	-9.10	-1.10	4.05	6.89	9.50	14.84
28	-35.79	-29.33	-26.20	-22.79	-18.61	-7.02	2.57	8.75	12.16	15.29	21.75
29	-40.96	-33.45	-29.81	-25.85	-18.65	-7.50	3.66	10.85	14.41	18.45	25.97
30	-44.44	-36.14	-32.12	-27.75	-19.80	-7.49	4.83	12.77	17.14	21.16	29.86
31	-51.26	-41.62	-36.95	-31.87	-22.65	-8.34	5.97	15.19	20.27	24.94	34.58
32	-57.22	-46.35	-41.09	-35.36	-24.95	-8.82	7.31	17.72	23.45	28.71	39.58
33	-60.80	-49.17	-43.54	-37.41	-26.27	-9.00	8.26	19.40	25.53	31.16	42.80
34	-64.02	-51.87	-45.99	-39.58	-27.95	-9.92	8.11	19.74	26.14	32.02	44.17
35	-67.00	-54.47	-48.39	-41.79	-29.79	-11.19	7.41	19.41	26.02	32.09	44.62
36	-70.95	-57.72	-51.30	-44.33	-31.65	-12.00	7.65	20.32	27.30	33.71	46.95
37	-77.73	-63.13	-56.06	-48.37	-34.39	-12.73	8.94	22.91	30.61	37.67	52.27
38	-84.19	-68.28	-60.58	-52.19	-36.97	-13.36	10.25	25.48	33.86	41.57	57.47
39	-89.38	-72.28	-63.99	-54.97	-38.60	-13.21	12.18	28.56	37.58	45.86	62.97
40	-91.88	-74.35	-65.86	-56.63	-39.85	-13.83	12.18	28.96	38.20	46.69	64.21
41	-92.31	-74.83	-66.36	-57.15	-40.42	-14.44	11.47	28.20	37.41	45.88	63.35
42	-90.48	-73.38	-65.09	-56.07	-39.70	-14.31	11.08	27.46	36.48	44.76	61.87
43	-90.27	-73.09	-64.78	-55.72	-39.28	-13.79	11.70	28.14	37.19	45.51	62.69
44	-88.25	-71.57	-63.49	-54.70	-38.74	-13.98	10.77	26.74	35.53	43.61	60.28
45	-92.06	-74.57	-66.10	-56.88	-40.14	-14.18	11.78	28.52	37.73	46.20	63.69
46	-93.63	-75.92	-67.35	-58.01	-41.06	-14.78	11.50	28.45	37.78	46.36	64.06
47	-92.85	-75.26	-66.74	-57.47	-40.63	-14.52	11.59	28.43	37.70	46.22	63.81
48	-92.15	-74.60	-66.10	-56.84	-40.04	-13.98	12.07	28.88	38.13	46.63	64.12
49	-91.56	-74.09	-65.62	-56.41	-39.68	-13.74	12.20	28.93	38.14	46.60	64.08
50	-90.33	-73.24	-64.97	-55.96	-39.60	-14.24	11.12	27.48	36.49	44.76	61.85
51	-91.56	-74.21	-65.81	-56.66	-40.05	-14.30	11.46	28.06	37.21	45.61	62.96
52	-91.66	-74.16	-65.69	-56.45	-39.69	-13.70	12.28	29.04	38.27	46.75	64.26
53	-92.27	-74.82	-66.37	-57.17	-40.47	-14.57	11.33	28.03	37.23	45.68	63.13
54	-96.09	-78.00	-69.24	-59.71	-42.40	-15.56	11.28	28.59	38.12	46.88	64.96
55	-98.15	-79.94	-71.11	-61.51	-44.08	-17.04	10.00	27.44	37.04	45.86	64.08
56	-102.10	-83.50	-74.50	-64.70	-46.90	-19.30	8.30	26.10	35.90	44.91	63.50
57	-101.80	-83.58	-74.76	-65.16	-47.73	-20.70	6.34	23.77	33.37	42.14	60.40
58	-93.83	-76.63	-68.30	-59.24	-42.78	-17.25	8.28	24.75	33.81	42.14	59.34
59	-98.65	-81.36	-72.98	-63.86	-47.30	-21.63	4.05	20.61	29.72	38.10	55.40
60	-87.83	-73.64	-66.77	-59.30	-45.72	-24.66	-3.61	9.97	17.45	24.32	38.50
61	-105.46	-87.03	-78.10	-68.39	-50.75	-23.39	3.96	21.61	31.32	40.25	58.68
62	-98.99	-81.73	-73.37	-64.27	-47.75	-22.13	3.50	20.02	29.12	37.48	54.74
63	-92.73	-76.59	-68.77	-60.26	-44.81	-20.85	3.11	18.56	27.06	34.88	51.02
64	-86.30	-71.32	-64.06	-56.16	-41.82	-19.59	2.65	16.99	24.89	32.14	47.12
65	-79.96	-66.11	-59.41	-52.11	-38.86	-18.31	2.24	15.50	22.79	29.50	43.34
66	-73.57	-60.87	-54.72	-48.03	-35.88	-17.03	1.81	13.96	20.66	26.80	39.50
67	-67.22	-55.66	-50.07	-43.98	-32.91	-15.76	1.39	12.45	18.54	24.14	35.70
68	-61.12	-50.65	-45.58	-40.06	-30.03	-14.49	1.06	11.08	16.60	21.67	32.14
69	-54.90	-45.54	-41.01	-36.07	-27.12	-13.22	.67	9.63	14.56	19.10	28.48
70	-48.77	-40.50	-36.50	-32.14	-24.22	-11.95	.32	8.24	12.60	16.60	24.87

TABLE 6.1. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

JANUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.16	-6.28	-5.37	-4.39	-2.59	-1.9	2.97	4.77	5.76	6.66	8.54
1	-17.61	-12.97	-10.71	-8.27	-3.82	3.08	9.98	14.42	16.37	19.12	23.77
2	-14.39	-9.58	-7.26	-4.73	-1.3	7.00	14.13	18.72	21.25	23.58	28.38
3	-12.50	-7.37	-4.84	-2.18	2.74	10.36	17.38	22.90	25.60	28.09	33.22
4	-11.80	-6.09	-3.33	-0.32	5.14	13.61	22.04	27.54	30.55	33.31	39.02
5	-11.91	-5.42	-2.23	1.14	7.35	16.99	26.62	32.83	36.25	39.40	45.39
6	-10.97	-3.89	-0.46	3.27	10.05	20.56	31.07	37.85	41.58	45.01	52.09
7	-11.92	-3.85	0.06	4.31	12.04	24.02	36.01	43.73	47.99	51.20	59.97
8	-12.11	-3.27	1.02	5.68	14.14	27.26	40.38	48.84	53.50	57.79	66.63
9	-13.21	-3.41	1.33	6.50	15.87	30.41	44.95	54.33	59.49	64.24	74.03
10	-14.26	-3.46	1.78	7.47	17.82	33.86	49.90	60.24	65.94	71.17	81.98
11	-14.11	-2.54	2.91	8.95	19.92	36.94	53.95	64.93	70.37	76.52	87.99
12	-10.53	0.61	6.00	11.87	22.53	39.07	55.60	66.26	72.13	77.52	88.66
13	-4.37	5.42	10.16	15.32	24.69	39.21	53.74	63.11	68.27	73.01	82.80
14	-2.23	6.61	10.89	15.56	24.02	37.14	50.27	58.73	63.39	67.68	76.52
15	-1.64	6.21	10.01	14.15	21.66	37.31	44.96	52.48	56.62	60.42	69.27
16	-1.01	5.65	8.88	12.39	18.77	28.66	38.55	44.93	48.44	51.67	58.33
17	-3.67	2.35	5.27	8.44	14.21	27.15	37.09	37.85	41.03	43.94	49.97
18	-7.26	-1.77	0.89	3.79	9.04	17.18	25.33	30.58	33.48	36.12	41.62
19	-10.24	-5.27	-2.86	-0.24	4.52	11.90	19.23	24.04	26.66	29.07	34.04
20	-12.08	-7.60	-5.43	-3.07	1.22	7.86	14.51	18.80	21.10	23.32	27.80
21	-14.10	-9.68	-7.54	-5.21	-0.97	5.59	12.15	16.38	18.71	20.85	25.27
22	-17.25	-12.35	-9.98	-7.40	-2.71	4.56	11.83	16.52	19.10	21.47	26.37
23	-18.84	-13.58	-11.18	-8.46	-4.52	4.14	11.80	16.74	19.46	21.96	27.12
24	-20.74	-15.13	-12.41	-9.45	-6.07	4.27	12.60	17.98	20.94	23.66	29.29
25	-21.19	-15.25	-12.77	-9.23	-5.94	5.29	14.12	19.82	22.95	25.83	31.78
26	-24.98	-17.81	-14.38	-10.64	-8.66	6.66	17.19	23.97	27.71	31.14	36.23
27	-28.30	-20.27	-16.38	-12.15	-10.47	7.45	19.36	27.05	31.23	35.17	43.20
28	-33.25	-26.25	-22.06	-15.17	-12.46	7.94	18.34	25.04	28.73	32.13	39.13
29	-36.63	-28.94	-24.65	-18.40	-12.67	9.31	21.29	29.01	33.27	37.18	45.25
30	-42.38	-34.24	-28.68	-22.83	-12.81	11.66	25.34	34.15	39.01	43.47	52.68
31	-47.71	-39.56	-33.65	-28.10	-12.99	13.46	28.52	38.23	43.58	48.49	58.63
32	-52.24	-44.13	-38.15	-33.29	-12.89	14.24	30.73	41.37	47.23	52.61	63.72
33	-56.97	-48.58	-42.54	-38.19	-12.99	14.34	32.77	44.66	51.21	57.22	69.64
34	-61.32	-52.81	-46.81	-42.54	-12.32	14.32	33.56	45.97	52.80	59.08	72.04
35	-66.72	-56.89	-50.89	-46.89	-12.06	13.78	34.61	48.05	55.44	62.24	76.28
36	-72.82	-60.27	-54.27	-50.79	-12.08	14.17	35.42	49.13	56.68	63.62	77.93
37	-78.99	-63.26	-57.13	-54.37	-12.77	14.58	36.44	50.94	58.30	65.43	80.16
38	-84.12	-65.89	-59.69	-57.19	-12.02	14.81	37.80	52.63	60.80	68.30	83.79
39	-89.01	-67.62	-61.16	-59.16	-12.72	15.53	38.38	53.11	61.23	68.69	84.07
40	-93.20	-68.88	-62.71	-60.73	-12.22	16.26	38.75	53.25	61.24	68.58	83.73
41	-97.69	-67.62	-60.18	-58.88	-12.79	16.61	40.01	55.10	63.41	71.04	86.81
42	-101.61	-66.08	-58.81	-57.31	-12.41	17.69	40.79	55.69	63.89	71.43	86.99
43	-105.79	-65.08	-57.42	-56.12	-12.04	18.33	41.70	56.78	65.08	72.71	88.45
44	-109.82	-63.78	-55.75	-54.84	-11.55	19.64	43.04	58.13	66.44	74.07	89.83
45	-114.85	-62.42	-54.60	-53.10	-11.20	21.30	45.25	60.69	69.20	77.01	93.15
46	-119.80	-61.30	-53.30	-51.70	-11.21	23.44	48.08	63.98	72.73	80.77	97.58
47	-124.82	-60.01	-51.87	-50.01	-10.00	25.02	49.97	66.06	74.92	83.06	99.66
48	-129.82	-58.27	-49.32	-48.32	-1.72	26.59	51.46	67.50	76.33	84.45	101.20
49	-134.83	-56.67	-47.56	-46.73	1.31	28.18	53.05	69.09	77.93	86.04	102.80
50	-139.29	-55.37	-46.19	-45.29	3.86	28.92	53.97	70.13	79.03	87.20	104.08
51	-144.60	-54.63	-45.11	-44.46	3.79	28.98	54.17	70.42	79.37	87.59	104.56
52	-149.79	-53.53	-44.15	-43.07	4.46	30.08	55.71	72.23	81.33	89.69	106.96
53	-154.13	-52.18	-42.97	-41.84	7.19	32.34	57.50	73.73	82.66	90.97	107.82
54	-158.82	-50.37	-42.52	-40.97	11.55	35.61	59.68	75.20	83.74	91.60	107.61
55	-163.65	-48.47	-42.63	-40.10	11.40	35.42	59.45	74.94	83.47	91.31	107.50
56	-168.99	-46.98	-42.28	-38.21	15.53	39.29	63.05	76.38	86.81	94.57	110.58
57	-174.52	-45.67	-41.51	-36.36	19.49	44.49	69.49	81.62	94.50	102.65	115.50
58	-179.90	-44.31	-40.31	-34.48	23.27	48.86	73.45	91.24	101.03	110.03	120.62
59	-185.71	-42.94	-39.81	-32.63	26.88	44.98	69.87	85.93	94.77	102.89	115.66
60	-191.50	-41.59	-38.90	-30.90	29.51	43.71	67.92	83.63	92.12	100.02	116.33
61	-197.29	-40.63	-38.00	-29.41	31.41	41.68	65.27	80.36	88.66	96.29	112.05
62	-203.10	-39.72	-37.12	-28.03	33.33	40.05	63.17	78.07	86.28	93.83	109.40
63	-208.91	-38.82	-36.23	-26.73	35.22	38.22	61.02	75.72	83.82	91.26	106.61
64	-214.72	-37.92	-35.33	-25.43	37.12	36.39	59.95	73.51	81.52	88.88	104.09
65	-220.53	-37.02	-34.43	-24.13	39.02	34.57	58.94	71.37	79.31	86.61	101.68
66	-226.34	-36.12	-33.53	-22.83	40.92	32.74	54.92	69.23	77.10	84.34	99.29
67	-232.15	-35.22	-32.63	-21.53	42.82	30.91	52.94	67.14	74.97	82.15	96.99
68	-237.96	-34.32	-31.73	-20.23	44.72	29.07	50.87	64.93	72.67	79.79	94.48
69	-243.77	-33.42	-30.83	-18.93	46.62	27.25	48.94	62.93	70.63	77.71	92.33
70	-249.58	-32.52	-29.93	-17.63	48.52	25.42	47.02	60.95	68.62	75.66	90.22

TABLE 6.2. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS

60 DEGREE FLIGHT AZIMUTH

FEBRUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.33	-6.77	-5.77	-4.63	-2.71	.34	3.40	5.37	6.46	7.46	9.52
1	-16.47	-11.80	-9.53	-7.07	-2.60	4.34	11.27	15.74	18.20	20.47	25.14
2	-14.26	-9.26	-6.84	-4.21	.57	7.99	15.40	20.19	22.92	25.23	30.23
3	-13.01	-7.53	-4.87	-1.97	3.28	11.43	19.58	24.83	27.72	30.38	35.87
4	-12.81	-6.70	-3.74	-.52	6.33	14.40	23.46	29.31	32.53	35.49	41.60
5	-13.23	-6.28	-2.92	.74	7.39	17.69	28.00	34.85	38.31	41.67	48.61
6	-13.61	-5.75	-1.94	2.20	7.72	21.39	33.05	40.57	44.72	48.52	56.38
7	-15.13	-6.18	-1.61	2.87	11.44	24.73	38.01	46.58	51.30	55.64	64.59
8	-16.30	-6.83	-1.95	3.36	13.00	27.95	42.90	52.54	57.85	62.73	72.80
9	-15.35	-7.95	-2.47	3.58	14.48	31.40	48.31	59.22	65.23	70.75	82.14
10	-20.28	-8.00	-2.06	4.40	16.13	34.33	52.52	64.26	70.72	76.65	84.91
11	-20.54	-7.52	-1.22	5.64	18.09	37.41	56.72	69.18	76.03	82.34	95.35
12	-16.61	-3.94	2.19	3.87	20.99	39.79	58.59	70.71	77.38	83.52	96.18
13	-12.56	-.80	4.90	11.10	22.36	39.82	57.29	68.55	74.75	80.45	92.21
14	-8.01	2.09	6.94	12.30	21.97	36.96	51.94	61.61	66.93	71.82	81.92
15	-5.32	3.18	7.30	11.78	19.91	32.53	45.15	53.29	57.77	61.89	70.39
16	-4.82	2.58	6.16	10.06	17.14	29.12	39.10	46.18	50.08	53.66	61.05
17	-6.50	.03	3.10	6.63	12.87	22.66	32.25	38.49	41.93	45.09	51.62
18	-9.91	-3.93	-1.04	2.11	7.83	16.70	25.57	31.29	34.44	37.34	43.31
19	-12.50	-7.16	-4.57	-1.75	3.36	11.29	19.22	24.73	27.15	29.73	35.08
20	-15.46	-10.51	-8.12	-5.51	-.78	6.55	13.89	19.62	21.23	23.62	28.57
21	-16.68	-12.15	-9.98	-7.57	-2.23	3.49	10.21	14.54	16.93	19.12	23.65
22	-18.03	-13.56	-11.39	-9.03	-4.74	1.91	8.55	12.94	15.20	17.37	21.84
23	-18.40	-13.96	-11.81	-9.47	-5.21	1.38	7.98	12.27	14.57	16.73	21.17
24	-18.47	-13.97	-11.79	-9.42	-5.11	1.57	8.24	12.55	14.92	17.10	21.60
25	-20.63	-15.66	-13.25	-10.63	-5.87	1.62	8.90	13.66	16.28	18.69	23.66
26	-21.52	-16.23	-13.67	-10.87	-5.81	2.05	9.91	14.98	17.77	20.33	25.63
27	-23.34	-17.52	-14.70	-11.62	-6.05	2.60	11.25	16.82	19.90	22.72	28.54
28	-18.16	-12.47	-9.72	-6.72	-1.28	7.16	15.60	21.04	24.04	26.79	32.40
29	-18.00	-11.91	-8.96	-5.76	-.07	9.18	18.14	23.96	27.17	30.12	36.21
30	-17.93	-11.17	-7.90	-4.34	2.14	12.17	22.21	28.68	32.24	35.52	42.28
31	-16.84	-9.68	-6.22	-2.44	4.41	15.03	25.66	32.51	36.28	39.75	46.91
32	-17.75	-9.80	-5.94	-1.75	5.87	17.68	29.49	37.11	41.30	45.16	53.11
33	-19.36	-10.97	-6.30	-2.47	5.57	18.03	30.50	38.54	42.96	47.03	55.43
34	-20.06	-11.63	-7.35	-3.11	4.95	17.46	29.96	38.03	42.87	46.55	54.97
35	-20.52	-11.99	-7.86	-3.37	4.80	17.45	30.11	38.28	42.77	46.90	55.43
36	-21.99	-12.94	-8.55	-3.78	4.88	18.31	31.75	40.41	45.18	49.56	58.61
37	-23.00	-13.61	-9.07	-4.12	4.87	18.81	32.74	41.73	46.68	51.23	60.62
38	-23.99	-14.18	-9.42	-4.25	5.15	19.72	34.28	43.68	48.85	53.61	63.42
39	-24.35	-14.30	-9.43	-4.13	5.49	20.41	35.34	44.96	50.26	55.13	65.18
40	-26.88	-15.45	-10.31	-4.71	5.46	21.23	37.00	47.17	52.77	57.91	68.54
41	-27.33	-15.97	-10.46	-4.48	6.40	23.27	40.13	51.01	57.00	62.50	73.86
42	-24.34	-13.13	-7.70	-1.79	8.35	25.59	42.24	52.97	58.89	64.32	75.53
43	-24.43	-12.74	-7.09	-.93	10.25	27.59	44.94	56.12	62.28	67.93	79.62
44	-25.56	-13.15	-7.14	-.60	11.27	29.68	48.10	59.97	66.51	72.52	84.92
45	-23.94	-11.32	-5.21	1.44	13.52	32.24	50.37	63.05	69.70	75.81	88.43
46	-22.21	-9.38	-3.25	3.41	15.51	34.27	53.03	65.12	71.79	77.91	90.54
47	-20.87	-8.21	-2.07	4.60	16.72	35.51	54.30	66.42	73.10	79.23	91.89
48	-17.58	-5.39	-.51	6.93	18.60	36.69	54.77	66.44	72.86	78.76	90.95
49	-15.73	-3.49	2.43	8.88	20.59	38.75	56.90	68.61	75.06	80.98	93.22
50	-15.54	-3.26	2.69	9.17	20.93	39.16	57.39	69.15	75.63	81.58	93.86
51	-14.70	-2.37	3.60	10.10	21.90	40.19	58.49	70.29	76.79	82.76	95.09
52	-14.17	-1.49	4.65	11.33	23.46	42.27	61.09	73.22	79.90	86.04	98.72
53	-11.65	1.03	7.17	13.85	25.98	44.79	63.61	75.74	82.42	88.56	101.24
54	-9.38	3.31	9.45	16.14	28.29	47.12	65.95	78.10	84.79	90.93	103.62
55	-6.62	6.02	12.14	18.81	30.91	49.67	68.44	80.54	87.20	93.33	105.97
56	-7.21	5.92	12.27	19.19	31.76	51.25	70.73	83.30	90.22	96.58	109.70
57	-12.19	2.52	9.65	17.41	31.49	53.34	75.18	89.26	97.02	104.15	118.86
58	-4.67	8.30	14.58	21.42	33.83	53.09	72.34	84.75	91.59	97.87	110.84
59	-1.26	11.83	18.17	25.07	37.60	57.03	76.46	88.99	95.89	102.23	115.32
60	-.72	13.03	19.69	26.94	40.11	60.52	80.94	94.11	101.36	108.02	121.77
61	-8.22	6.80	14.07	21.99	36.36	56.66	80.95	95.33	103.24	110.52	125.54
62	-8.49	6.17	13.27	20.99	35.02	56.77	78.53	92.56	100.28	107.38	122.03
63	-9.03	5.32	12.28	19.85	33.59	54.90	76.22	89.96	97.53	104.48	118.84
64	-9.29	4.70	11.48	18.86	32.25	53.02	73.80	87.19	94.57	101.35	115.34
65	-9.60	4.04	10.65	17.84	30.90	51.16	71.41	84.47	91.66	98.27	111.91
66	-9.91	3.38	9.82	16.83	29.55	49.28	69.01	81.73	88.74	95.18	108.47
67	-10.17	2.76	9.02	15.84	28.21	47.40	66.59	78.97	85.78	92.05	104.97
68	-10.72	1.91	8.03	14.69	26.78	45.53	64.28	76.38	83.03	89.15	101.78
69	-10.99	1.28	7.22	13.69	25.44	43.65	61.86	73.61	80.07	86.02	98.29
70	-11.30	.62	6.40	12.68	24.09	41.78	59.47	70.88	77.16	82.94	94.88

TABLE 6.3. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

MARCH

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.16	-7.10	-6.10	-5.01	-3.03	.03	3.09	5.06	6.15	7.15	9.21
1	-16.55	-12.01	-9.82	-7.43	-3.09	3.64	10.37	14.71	17.10	19.29	21.83
2	-13.93	-9.23	-6.95	-4.47	.03	7.01	13.99	18.49	20.37	23.25	27.95
3	-13.80	-8.46	-5.88	-3.07	2.04	9.96	17.88	22.99	25.20	28.29	32.72
4	-13.71	-7.76	-4.84	-1.75	3.95	12.77	21.60	27.29	30.43	33.31	37.25
5	-13.38	-6.78	-3.59	-1.0	6.22	16.02	25.87	32.14	35.52	38.82	42.42
6	-12.43	-5.26	-1.73	1.99	8.86	17.50	28.15	37.01	40.79	44.25	51.44
7	-12.73	-4.74	-.87	3.34	10.99	22.86	34.72	42.77	46.59	50.45	58.45
8	-12.71	-4.01	.19	4.78	13.10	26.00	38.90	47.21	51.30	56.01	64.70
9	-13.63	-3.99	.67	5.75	14.98	29.28	43.59	52.81	57.80	62.56	72.20
10	-14.26	-3.74	1.35	6.89	16.95	32.57	48.19	58.24	63.79	69.99	79.39
11	-13.90	-2.80	2.57	8.42	19.04	35.52	51.99	62.61	68.46	73.84	84.94
12	-10.44	.48	5.76	11.57	21.97	39.17	54.37	64.92	70.57	75.96	86.77
13	-4.90	4.82	9.57	14.60	23.96	39.40	57.83	67.14	72.26	77.27	81.70
14	-1.57	6.77	10.81	15.20	23.18	35.55	47.92	55.93	60.29	64.32	72.65
15	-.57	6.61	10.09	13.87	20.75	31.41	42.67	49.95	52.74	56.22	63.47
16	-.67	5.49	8.48	11.73	17.62	26.77	35.91	41.41	45.05	48.04	54.20
17	-3.37	2.27	5.00	7.97	13.36	21.73	30.09	35.49	38.46	41.19	46.82
18	-7.17	-2.03	.46	3.19	4.10	15.74	23.37	28.30	31.01	33.50	39.65
19	-10.97	-6.30	-4.05	-1.55	2.82	9.90	16.72	21.19	23.65	25.90	30.57
20	-13.70	-9.37	-7.27	-4.99	-.45	5.57	11.99	16.13	18.42	20.51	24.84
21	-15.05	-11.08	-9.16	-7.06	-3.26	2.63	8.52	12.32	14.41	16.34	20.31
22	-16.85	-12.80	-10.84	-8.70	-4.83	1.19	7.20	11.07	13.21	15.17	19.22
23	-17.97	-13.96	-12.02	-9.91	-6.07	-.13	5.82	9.66	11.77	13.71	17.72
24	-19.19	-15.37	-12.93	-10.71	-6.68	-.43	5.82	9.96	12.08	14.12	18.37
25	-20.97	-16.29	-14.02	-11.55	-7.06	-.11	5.84	11.32	13.70	16.06	20.74
26	-21.86	-16.81	-14.37	-11.71	-6.88	.60	8.09	12.92	15.58	18.02	23.07
27	-24.24	-18.62	-15.87	-12.89	-7.47	.94	9.35	14.77	17.76	20.50	26.16
28	-16.82	-11.77	-9.32	-6.65	-1.81	5.69	13.20	18.04	20.70	23.15	28.20
29	-16.88	-11.31	-8.65	-5.76	-.80	7.64	15.79	21.04	23.94	26.99	32.08
30	-18.04	-11.96	-9.02	-5.81	.01	9.03	18.06	23.88	27.08	30.03	36.11
31	-20.87	-13.40	-10.37	-6.65	.12	10.62	21.11	27.88	31.61	35.03	42.10
32	-23.49	-15.91	-12.09	-7.84	-.20	11.65	23.49	31.13	35.34	39.20	47.18
33	-25.92	-17.45	-13.34	-8.88	-.76	11.82	24.40	32.51	36.98	41.08	49.56
34	-26.39	-17.74	-13.55	-8.99	-.71	12.13	24.97	33.25	37.81	42.00	50.65
35	-29.38	-16.25	-12.32	-8.03	-.25	11.81	23.88	31.66	35.95	39.88	48.01
36	-24.16	-16.14	-12.25	-8.03	-.35	11.56	23.46	31.14	35.37	39.26	47.28
37	-22.62	-14.90	-11.15	-7.09	.30	11.76	23.22	30.62	34.68	38.42	46.14
38	-21.64	-14.02	-10.32	-6.30	.99	12.31	23.63	30.93	34.95	38.64	46.27
39	-21.66	-13.78	9.37	-5.82	1.72	13.41	25.10	32.64	36.79	40.61	48.49
40	-22.07	-13.65	-9.87	-5.64	2.33	14.53	26.73	34.60	38.94	42.32	51.14
41	-23.12	-14.44	-10.44	-5.86	2.45	15.33	28.22	36.53	41.10	45.31	53.99
42	-23.87	-14.16	-9.85	-5.15	3.38	16.60	29.82	38.35	43.04	47.36	56.27
43	-23.88	-12.99	-8.62	-3.87	4.75	18.12	31.49	40.11	44.86	49.22	59.23
44	-20.98	-11.81	-7.37	-2.53	6.24	19.86	33.47	42.25	47.08	51.53	60.70
45	-18.61	-9.66	-5.32	-.60	7.97	21.25	34.54	43.11	47.83	52.15	61.11
46	-15.65	-6.97	-2.77	1.81	10.11	23.00	35.88	44.19	48.77	52.97	61.65
47	-13.73	-5.09	-.90	3.66	11.94	25.78	37.62	45.89	50.45	54.64	63.29
48	-11.40	-2.81	1.35	5.88	14.10	26.45	39.59	47.82	52.34	56.50	65.09
49	-9.35	-.78	3.37	7.89	16.10	28.83	41.55	49.76	54.28	58.43	67.01
50	-8.20	-.45	4.64	9.21	17.49	30.34	43.18	51.47	56.03	60.22	68.87
51	-6.34	2.24	6.40	10.92	19.13	31.87	44.61	52.83	57.35	61.50	70.09
52	-4.57	3.92	8.08	12.50	20.62	33.21	45.81	53.93	58.40	62.51	71.00
53	-7.78	1.94	6.05	10.96	19.88	33.70	47.53	56.44	61.35	65.86	75.18
54	-7.14	2.17	6.68	11.59	20.50	34.33	48.15	57.07	61.98	66.49	75.80
55	-10.55	-.26	4.73	10.15	20.01	35.29	50.56	60.42	65.84	70.83	81.12
56	-4.01	5.12	9.55	14.36	23.11	36.67	50.23	58.97	63.79	68.21	77.35
57	-.03	8.63	12.79	17.32	25.55	39.31	51.07	59.30	63.83	67.99	76.59
58	-.22	8.68	12.99	17.68	26.20	39.42	52.63	61.15	65.84	70.15	79.06
59	2.65	11.60	15.93	20.65	29.21	42.49	55.77	64.33	69.05	73.38	82.33
60	4.23	13.61	18.15	23.10	32.08	46.01	59.94	68.92	73.87	78.41	87.78
61	-3.53	7.19	12.39	18.04	28.31	44.23	60.16	70.42	76.08	81.27	92.00
62	-4.38	6.20	11.28	16.82	26.87	42.45	58.03	68.08	73.61	78.70	89.19
63	-5.12	5.16	10.14	15.56	25.41	40.67	55.93	65.77	71.19	76.17	86.45
64	-5.89	4.17	9.04	14.34	23.96	38.88	53.80	63.43	68.73	73.59	83.65
65	-6.65	3.17	7.93	13.11	22.52	37.10	51.68	61.09	66.27	71.03	80.85
66	-7.42	2.18	6.88	11.89	21.07	35.32	49.56	58.75	63.81	68.46	78.06
67	-8.13	1.18	5.72	10.66	19.63	33.53	47.44	56.41	61.35	65.89	75.26
68	-9.02	.14	4.57	9.40	18.16	31.75	45.34	54.11	58.94	63.37	72.53
69	-9.88	-.87	3.46	8.16	16.71	29.97	43.22	51.77	56.48	60.80	69.73
70	-10.58	-1.87	2.35	6.93	15.27	28.19	41.11	49.44	54.03	58.24	66.95

TABLE 6.4. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

APRIL

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.97	-7.83	-6.28	-5.70	-5.70	-5.70	2.39	4.39	5.48	6.49	8.57
1	-17.55	-13.30	-11.24	-10.00	-9.39	1.17	7.68	11.79	15.38	16.04	20.29
2	-17.80	-13.11	-10.87	-9.36	-8.87	3.09	10.05	14.54	17.02	19.29	23.98
3	-19.03	-13.50	-11.10	-9.28	-8.16	4.77	12.70	17.82	20.63	23.22	29.57
4	-19.00	-13.84	-10.95	-9.61	-8.10	6.75	15.60	21.31	24.45	27.34	33.30
5	-20.00	-14.13	-10.90	-9.70	-8.01	8.83	18.79	25.16	28.69	31.91	39.57
6	-21.90	-14.49	-10.91	-9.00	-7.09	11.08	22.07	29.10	33.06	36.65	44.05
7	-23.11	-14.33	-10.96	-8.65	-7.17	13.34	25.49	33.33	37.64	41.61	49.79
8	-24.24	-15.27	-10.93	-8.70	-7.38	15.70	29.01	37.59	42.22	46.67	55.64
9	-27.61	-17.30	-12.47	-7.05	-7.74	17.91	33.09	42.87	48.25	53.21	63.44
10	-30.50	-19.16	-13.59	-7.56	-7.33	20.24	37.16	48.00	54.67	59.59	70.98
11	-31.93	-19.70	-13.77	-7.27	-7.49	22.73	40.77	52.73	59.21	65.16	77.44
12	-31.93	-19.03	-12.64	-6.69	-6.16	25.15	44.14	56.79	63.14	69.33	82.13
13	-37.50	-19.50	-13.30	-7.36	-6.71	26.82	44.92	56.60	63.03	69.94	81.14
14	-32.11	-19.50	-13.30	-6.32	-6.57	25.87	41.36	53.61	57.25	62.44	73.15
15	-16.87	-8.01	-1.77	-0.75	-0.43	27.54	45.73	44.21	48.88	53.17	62.03
16	-14.73	-7.20	-0.74	-0.74	-0.74	18.42	39.47	36.59	40.71	44.12	51.56
17	-15.61	-9.00	-0.70	-0.71	-0.02	17.83	23.64	29.97	33.45	36.65	43.26
18	-16.07	-10.59	-7.86	-4.95	-3.5	4.56	16.77	22.07	24.98	27.66	33.19
19	-17.92	-13.00	-10.01	-8.01	-3.28	4.04	11.36	18.08	16.68	21.07	26.00
20	-17.77	-13.53	-11.47	-9.23	-5.17	1.13	7.43	11.49	13.73	15.78	20.03
21	-18.05	-13.37	-11.63	-9.74	-6.37	-1.00	4.32	7.75	9.64	11.37	14.96
22	-16.44	-13.77	-11.63	-9.33	-7.93	-2.14	2.59	5.64	7.33	9.88	12.08
23	-16.00	-13.55	-12.01	-10.41	-7.47	-2.81	1.81	4.79	6.43	7.94	11.05
24	-18.03	-14.62	-12.98	-11.16	-7.93	-2.88	2.14	5.43	7.23	8.47	12.28
25	-19.78	-15.94	-14.07	-12.05	-9.37	-2.65	3.06	6.74	8.77	10.64	14.48
26	-21.61	-17.27	-15.17	-13.80	-9.72	-2.28	4.17	4.33	10.62	12.72	17.06
27	-21.73	-17.19	-14.99	-13.59	-8.27	-1.51	5.23	9.58	11.97	14.17	18.71
28	-22.76	-16.88	-14.44	-11.85	-7.13	-1.8	7.50	12.21	14.81	17.20	22.12
29	-22.27	-17.00	-14.46	-11.68	-6.64	1.17	8.99	14.02	16.79	19.34	24.60
30	-22.76	-17.12	-14.40	-11.44	-6.05	2.29	10.64	16.03	18.99	21.71	27.34
31	-22.70	-16.46	-14.03	-10.95	-5.35	3.32	12.00	17.59	20.67	23.50	29.35
32	-22.50	-16.65	-13.81	-10.73	-5.13	3.56	12.25	17.85	20.94	23.77	29.62
33	-23.65	-17.45	-14.45	-11.18	-5.24	3.86	13.16	19.10	22.37	25.37	31.57
34	-25.02	-18.49	-15.32	-11.88	-5.62	4.08	13.78	20.03	23.47	26.64	33.17
35	-25.38	-18.77	-15.56	-12.08	-5.75	4.07	13.89	20.22	23.70	26.91	33.52
36	-22.59	-16.55	-13.63	-10.45	-6.67	4.29	13.25	19.03	22.21	25.13	31.17
37	-19.91	-14.15	-11.96	-9.14	-8.01	3.94	11.89	17.01	19.84	22.43	27.74
38	-20.94	-15.34	-12.62	-9.67	-8.31	4.00	12.31	17.67	20.62	23.34	28.94
39	-21.66	-15.91	-13.12	-10.08	-8.57	3.97	12.51	18.02	21.06	23.84	29.60
40	-22.46	-16.42	-13.50	-10.32	-8.54	4.42	13.38	19.16	22.34	25.27	31.30
41	-24.69	-17.98	-14.73	-11.19	-8.76	5.20	15.16	21.59	25.12	28.37	35.09
42	-26.09	-19.17	-15.81	-12.10	-8.54	4.74	15.02	21.65	25.30	28.66	35.58
43	-27.15	-19.88	-16.35	-12.51	-8.55	5.26	16.06	23.02	26.86	30.39	37.66
44	-28.48	-20.73	-16.98	-12.89	-8.48	6.02	17.52	24.93	29.02	32.77	40.52
45	-29.76	-21.52	-17.54	-13.20	-8.31	6.91	19.13	27.02	31.36	35.35	43.58
46	-31.00	-22.09	-17.77	-13.08	-8.55	8.67	21.90	30.43	35.12	39.44	48.35
47	-31.37	-22.21	-17.78	-12.95	-8.17	9.40	22.99	31.76	36.58	41.02	50.17
48	-32.24	-22.79	-18.21	-13.22	-8.17	9.87	23.90	32.95	37.94	42.52	51.97
49	-32.34	-22.82	-18.20	-13.16	-8.06	10.08	24.22	33.34	38.37	42.98	52.51
50	-33.23	-23.43	-18.69	-13.52	-8.14	10.41	24.96	34.34	39.51	44.26	54.05
51	-34.40	-24.21	-19.28	-13.91	-8.16	10.96	26.09	35.89	41.21	46.14	56.33
52	-32.35	-22.60	-17.67	-12.73	-3.40	11.08	25.56	34.89	40.03	44.76	54.51
53	-31.23	-21.62	-16.97	-11.90	-2.71	11.56	25.82	35.01	40.08	44.73	54.34
54	-29.84	-20.22	-15.55	-10.48	-1.27	13.02	27.31	36.52	41.60	46.26	55.88
55	-32.07	-21.66	-16.62	-11.13	-1.17	14.29	29.74	39.70	45.19	50.23	60.64
56	-29.70	-19.58	-14.68	-9.35	-0.34	15.37	30.39	40.08	45.41	50.31	60.43
57	-30.02	-19.71	-14.72	-9.29	-0.57	15.87	31.16	41.03	46.46	51.45	61.75
58	-37.18	-25.05	-19.18	-12.79	-1.18	16.82	34.82	46.43	52.82	58.69	70.82
59	-31.78	-21.20	-16.07	-10.49	-0.35	15.36	31.08	41.21	46.79	51.92	62.51
60	-32.48	-21.50	-16.18	-10.39	-0.12	16.42	32.72	43.23	49.01	54.33	65.31
61	-30.43	-20.03	-14.99	-9.51	-0.85	15.89	31.33	41.28	46.77	51.80	62.21
62	-30.57	-20.26	-15.26	-9.83	-0.05	15.36	30.67	40.55	45.99	50.98	61.30
63	-30.52	-20.33	-15.40	-10.03	-0.28	14.83	29.95	39.70	45.07	50.00	60.18
64	-30.67	-20.57	-15.68	-10.35	-0.68	14.31	29.30	38.97	44.29	49.18	59.28
65	-31.12	-21.04	-16.15	-10.84	-1.19	13.77	28.74	38.38	43.70	48.58	58.66
66	-31.07	-21.12	-16.30	-11.06	-1.53	13.24	28.01	37.53	42.78	47.59	57.54
67	-31.22	-21.36	-16.58	-11.38	-1.93	12.71	27.36	36.80	42.00	46.78	56.65
68	-31.42	-21.63	-16.89	-11.73	-2.35	12.18	26.72	36.09	41.25	46.00	55.79
69	-31.58	-21.87	-17.17	-12.05	-2.76	11.66	26.07	35.36	40.48	45.19	54.90
70	-31.79	-22.15	-17.49	-12.41	-3.18	11.12	25.43	34.65	39.73	44.40	54.03

TABLE 6.5. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

MAY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.61	-7.70	-6.77	-5.77	-3.94	-1.10	1.74	3.57	4.58	5.50	7.42
1	-16.00	-12.44	-10.72	-8.95	-5.44	-1.16	5.11	8.52	10.23	12.11	15.67
2	-17.50	-13.50	-11.56	-9.45	-5.61	-1.33	6.28	10.12	12.23	14.17	18.17
3	-17.82	-13.56	-11.43	-9.24	-5.16	1.16	7.49	11.57	13.32	15.88	20.15
4	-18.43	-13.82	-11.58	-9.14	-4.72	2.13	8.98	13.41	15.64	18.08	22.66
5	-18.47	-13.58	-11.21	-8.53	-3.95	3.32	10.58	15.26	17.84	20.21	25.11
6	-19.15	-13.84	-11.27	-8.47	-3.39	4.56	12.39	17.47	20.27	22.84	28.15
7	-21.47	-15.33	-12.35	-9.11	-3.23	5.89	15.00	20.89	24.12	27.10	33.24
8	-21.81	-15.27	-12.10	-8.65	-2.38	7.33	17.04	23.30	26.75	29.82	36.47
9	-23.79	-16.51	-12.33	-9.14	-2.17	8.63	19.44	26.41	30.25	33.77	41.05
10	-27.34	-18.92	-14.84	-10.41	-2.35	10.14	22.64	30.69	35.13	39.21	47.62
11	-30.26	-20.77	-16.13	-11.18	-2.10	11.93	26.07	35.15	40.15	44.74	54.27
12	-32.77	-22.31	-17.25	-11.73	-1.72	13.80	29.32	39.33	44.84	49.90	60.36
13	-32.45	-21.79	-16.63	-11.01	-1.80	15.03	30.85	41.06	46.68	51.34	62.51
14	-27.23	-17.81	-13.26	-8.29	-0.72	14.69	28.66	37.67	42.63	47.10	56.61
15	-22.38	-14.67	-10.93	-6.37	-0.52	11.97	23.42	30.90	34.97	39.61	46.32
16	-19.25	-13.00	-9.30	-4.68	-0.71	8.56	17.87	23.81	27.10	30.12	36.37
17	-17.68	-12.61	-10.16	-7.43	-2.64	4.88	12.39	17.24	19.31	22.37	27.43
18	-16.72	-12.63	-10.66	-8.50	-4.59	1.47	7.53	11.44	12.59	15.57	19.66
19	-15.55	-12.29	-10.71	-8.93	-5.87	-1.03	3.82	6.44	8.66	10.24	13.50
20	-15.92	-12.99	-11.57	-10.02	-7.21	-2.86	1.50	4.30	5.85	7.27	10.21
21	-16.09	-13.41	-12.12	-10.71	-8.15	-4.19	-2.22	2.33	3.74	5.04	7.71
22	-16.90	-14.27	-13.00	-11.62	-9.10	-5.21	-1.31	1.20	2.59	3.86	6.48
23	-17.60	-14.95	-13.67	-12.28	-9.75	-5.82	-1.89	0.64	2.04	3.32	5.97
24	-18.20	-16.29	-14.88	-13.34	-10.56	-6.24	-1.91	0.27	2.41	3.62	6.72
25	-20.49	-17.34	-15.31	-14.15	-11.14	-6.46	-1.79	1.23	2.89	4.42	7.57
26	-21.73	-18.31	-16.65	-14.84	-11.56	-6.48	-1.40	1.88	3.68	5.34	8.77
27	-22.54	-18.89	-17.12	-15.19	-11.69	-6.27	-0.85	2.65	4.58	6.35	10.00
28	-24.58	-20.34	-18.28	-16.05	-11.99	-5.69	0.61	4.67	6.90	8.96	13.20
29	-26.33	-20.76	-18.54	-16.13	-11.75	-4.97	1.82	6.20	8.61	10.82	15.40
30	-27.44	-22.35	-19.89	-17.21	-12.34	-4.78	2.77	7.64	10.32	12.79	17.88
31	-28.56	-21.51	-19.07	-16.41	-11.57	-4.08	3.41	8.24	10.90	13.35	18.39
32	-25.63	-20.59	-18.15	-15.49	-10.66	-3.17	4.32	9.14	11.80	14.25	19.29
33	-25.50	-20.47	-18.04	-15.39	-10.58	-3.13	4.33	9.14	11.78	14.22	19.24
34	-27.13	-21.76	-19.17	-16.34	-11.21	-3.25	4.71	9.85	12.67	15.27	20.63
35	-28.67	-23.11	-20.42	-17.49	-12.17	-3.32	4.32	9.64	12.57	15.26	20.62
36	-30.99	-25.14	-22.31	-19.23	-13.63	-4.95	3.72	9.32	12.40	15.23	21.08
37	-29.75	-24.31	-21.67	-18.80	-13.59	-5.50	2.58	7.79	10.66	13.30	18.75
38	-27.43	-22.54	-20.17	-17.59	-12.90	-5.63	1.64	6.32	8.90	11.27	16.17
39	-28.20	-23.32	-20.96	-18.39	-13.71	-6.47	0.78	5.45	8.02	10.39	15.27
40	-28.90	-24.20	-21.93	-19.46	-14.36	-8.00	-1.03	3.46	5.94	8.21	12.90
41	-30.73	-25.95	-23.63	-21.11	-16.52	-9.42	-2.32	2.26	4.78	7.10	11.84
42	-33.22	-27.98	-25.48	-22.68	-17.67	-9.89	-2.11	2.90	5.67	8.20	13.44
43	-35.76	-30.05	-27.29	-24.28	-18.82	-10.35	-1.88	3.59	6.59	9.36	15.06
44	-36.27	-30.60	-27.86	-24.87	-19.44	-11.03	-2.61	2.81	5.80	8.55	14.22
45	-36.67	-31.00	-28.25	-25.26	-19.82	-11.40	-2.98	2.46	5.45	8.20	13.87
46	-37.93	-32.11	-29.29	-26.23	-20.66	-12.02	-3.39	2.18	5.25	8.06	13.88
47	-39.29	-33.20	-30.25	-27.03	-21.20	-12.15	-3.10	2.73	5.94	8.90	14.99
48	-40.07	-34.01	-31.07	-27.87	-22.06	-13.06	-4.05	1.76	4.95	7.89	13.96
49	-41.89	-35.72	-32.72	-29.47	-23.55	-14.38	-5.21	0.70	3.96	6.95	13.13
50	-43.27	-36.94	-33.88	-30.54	-24.48	-15.08	-5.69	0.37	3.71	6.78	13.11
51	-45.06	-38.27	-34.99	-31.41	-24.91	-14.84	-4.76	1.74	5.31	8.60	15.39
52	-47.80	-40.41	-36.84	-32.94	-25.87	-14.91	-3.94	3.13	7.02	10.60	17.99
53	-47.20	-40.00	-36.51	-32.72	-25.83	-15.14	-4.46	2.43	6.22	9.71	16.91
54	-47.47	-40.14	-36.58	-32.72	-25.70	-14.81	-3.92	3.10	6.97	10.52	17.85
55	-49.02	-41.80	-37.71	-33.70	-26.41	-15.10	-3.80	3.50	7.51	11.20	18.82
56	-51.34	-43.23	-39.31	-35.04	-27.28	-15.26	-3.23	4.53	8.80	12.72	20.82
57	-52.33	-43.90	-39.81	-35.36	-27.29	-14.77	-2.25	5.83	10.27	14.35	22.79
58	-53.20	-45.71	-41.62	-37.09	-28.04	-16.46	-0.88	9.16	14.70	19.78	30.28
59	-54.72	-49.06	-44.38	-39.28	-30.04	-15.70	-1.35	7.89	12.99	17.66	27.33
60	-57.70	-59.81	-53.56	-46.76	-34.42	-15.27	3.87	16.22	23.02	29.26	42.16
61	-65.76	-59.32	-48.78	-42.75	-31.80	-14.82	2.16	13.11	19.14	24.69	36.13
62	-62.46	-61.65	-46.42	-40.73	-30.39	-14.36	1.67	12.01	17.70	22.93	33.73
63	-59.20	-49.03	-44.10	-38.74	-29.01	-13.91	1.18	10.92	16.28	21.21	31.34
64	-55.65	-46.18	-41.59	-36.59	-27.53	-13.46	0.60	9.67	14.67	19.25	28.73
65	-52.40	-43.55	-39.27	-34.61	-26.14	-13.01	-0.12	8.59	13.25	17.53	26.38
66	-49.09	-40.88	-36.91	-32.58	-24.73	-12.55	-0.37	7.48	11.81	15.78	23.99
67	-45.54	-38.03	-34.39	-30.43	-23.25	-12.10	-0.95	6.24	10.19	13.83	21.34
68	-42.29	-35.42	-32.08	-28.45	-21.87	-11.65	-1.44	5.15	8.77	12.11	18.99
69	-38.79	-32.89	-29.59	-26.32	-20.39	-11.19	-1.99	3.94	7.20	10.21	16.40
70	-35.49	-29.93	-27.24	-24.31	-18.99	-10.74	-2.49	2.83	5.76	8.45	14.60

TABLE 6.6. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

JUNE

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.36	-6.50	-5.70	-4.79	-3.09	-1.46	2.18	3.88	4.81	5.67	7.45
1	-14.26	-10.91	-9.14	-7.32	-4.02	1.11	6.23	9.53	11.35	13.02	16.47
2	-13.47	-10.04	-8.78	-6.58	-3.30	1.78	6.86	10.14	11.94	13.60	17.03
3	-12.52	-9.22	-7.92	-5.43	-2.72	2.17	7.07	10.23	11.96	13.55	16.85
4	-12.63	-9.25	-7.61	-5.31	-2.58	2.44	7.46	10.70	12.42	14.13	17.51
5	-13.00	-9.52	-7.34	-5.01	-2.68	2.43	7.65	10.93	12.31	14.50	17.39
6	-14.50	-10.65	-8.44	-6.32	-2.17	2.50	8.17	11.83	13.84	15.60	19.51
7	-16.33	-12.01	-9.91	-7.63	-1.49	2.33	3.36	13.50	15.73	17.87	22.27
8	-18.40	-13.54	-11.10	-8.67	-3.98	3.24	10.45	15.16	17.66	20.01	24.87
9	-21.45	-15.76	-13.00	-10.00	-4.55	3.30	12.35	17.30	20.30	23.50	29.25
10	-25.44	-18.75	-15.67	-11.90	-6.61	4.32	14.24	20.64	24.16	27.40	34.08
11	-29.59	-21.35	-17.29	-14.12	-6.71	4.77	16.26	23.67	27.75	31.50	39.24
12	-34.61	-25.65	-21.21	-16.50	-6.01	5.29	18.59	27.17	31.89	36.24	45.27
13	-36.70	-27.25	-22.07	-17.63	-8.55	5.38	19.40	28.45	33.43	38.01	47.46
14	-34.17	-25.62	-21.49	-16.97	-6.79	3.91	16.60	24.78	29.29	33.42	41.98
15	-28.65	-21.91	-18.00	-15.10	-5.16	1.36	11.36	17.91	21.36	24.63	31.37
16	-22.81	-17.89	-15.51	-12.92	-3.22	-0.43	6.37	11.07	13.66	16.04	20.96
17	-18.34	-15.32	-13.57	-11.56	-3.13	-0.82	2.56	6.02	7.33	3.69	13.31
18	-17.56	-14.71	-13.33	-11.87	-3.11	-0.88	-0.66	2.07	3.57	4.94	7.79
19	-17.62	-15.11	-13.90	-12.53	-10.10	-4.85	-2.74	-0.34	0.33	2.20	4.71
20	-19.30	-16.76	-15.52	-14.13	-11.76	-7.99	-4.22	-1.79	-0.45	0.78	3.32
21	-19.55	-17.13	-16.04	-14.70	-12.53	-10.03	-5.52	-3.26	-2.01	-0.87	1.43
22	-20.35	-18.05	-16.87	-15.72	-13.52	-10.10	-6.69	-4.48	-3.27	-2.16	0.15
23	-21.77	-19.36	-18.20	-16.93	-14.53	-11.06	-7.49	-5.19	-3.92	-2.76	-0.35
24	-23.06	-20.51	-19.25	-17.63	-15.49	-11.70	-7.91	-5.47	-4.13	-2.89	-0.34
25	-24.53	-21.85	-20.52	-18.46	-16.46	-12.40	-8.34	-5.73	-4.28	-2.96	-0.23
26	-25.53	-22.60	-21.27	-19.75	-17.00	-12.73	-8.47	-5.71	-4.20	-2.81	0.07
27	-26.31	-23.30	-22.23	-20.65	-17.66	-13.04	-8.42	-5.44	-3.82	-2.29	0.83
28	-28.31	-24.84	-23.16	-21.33	-18.00	-12.85	-7.70	-4.37	-2.94	-1.86	2.61
29	-27.40	-24.13	-22.55	-20.83	-17.70	-12.85	-8.00	-4.87	-3.15	-1.57	1.70
30	-27.41	-24.12	-22.53	-20.80	-17.65	-12.77	-7.89	-4.74	-3.00	-1.41	1.88
31	-29.05	-25.41	-23.64	-21.73	-18.24	-12.84	-7.44	-3.95	-2.04	-0.27	3.37
32	-30.16	-26.24	-24.34	-22.28	-18.52	-12.71	-6.83	-3.14	-1.07	0.83	4.75
33	-31.23	-27.18	-25.21	-23.08	-19.20	-13.19	-7.18	-3.30	-1.17	0.80	4.85
34	-35.01	-30.35	-28.10	-25.64	-21.18	-14.26	-7.35	-2.89	-0.43	1.92	6.48
35	-34.96	-30.51	-28.35	-26.01	-21.75	-15.14	-8.53	-4.27	-1.92	0.23	4.69
36	-35.54	-30.50	-28.55	-26.42	-22.55	-16.55	-10.55	-6.68	-4.55	-2.59	1.45
37	-35.56	-31.58	-29.65	-27.56	-23.75	-17.84	-11.93	-8.12	-6.02	-4.09	-0.11
38	-37.00	-32.90	-30.91	-28.75	-24.82	-18.73	-12.64	-8.71	-6.55	-4.56	-0.46
39	-39.46	-35.14	-33.08	-30.76	-26.62	-20.20	-13.78	-9.64	-7.36	-5.26	-0.94
40	-40.66	-36.43	-34.39	-32.16	-28.12	-21.84	-15.57	-11.53	-9.30	-7.25	-3.03
41	-44.22	-39.62	-37.39	-34.96	-30.56	-23.72	-16.89	-12.48	-10.05	-7.82	-3.22
42	-44.28	-39.97	-37.88	-35.60	-31.47	-25.07	-18.66	-14.53	-12.26	-10.17	-5.85
43	-45.22	-41.07	-39.06	-36.87	-32.89	-26.73	-20.56	-16.58	-14.39	-12.38	-8.23
44	-45.64	-41.62	-39.67	-37.55	-33.70	-27.74	-21.77	-17.92	-15.80	-13.85	-9.83
45	-47.14	-42.89	-40.84	-38.60	-34.54	-28.24	-21.94	-17.87	-15.64	-13.58	-9.34
46	-49.49	-44.88	-42.65	-40.22	-35.80	-28.96	-22.11	-17.70	-15.27	-13.04	-8.42
47	-52.95	-47.75	-45.23	-42.49	-37.51	-29.79	-22.07	-17.09	-14.34	-11.83	-6.62
48	-53.87	-48.67	-46.15	-43.40	-38.42	-30.70	-22.98	-18.00	-15.26	-12.74	-7.54
49	-56.07	-52.09	-49.20	-46.05	-40.33	-31.47	-22.60	-16.88	-13.73	-10.84	-4.87
50	-56.17	-50.37	-47.57	-44.51	-38.97	-30.37	-21.77	-16.23	-13.17	-10.37	-4.54
51	-59.83	-53.30	-50.13	-46.70	-40.45	-30.76	-21.07	-14.82	-11.38	-8.22	-1.69
52	-58.68	-52.62	-49.68	-46.49	-40.69	-31.70	-22.70	-16.90	-13.71	-10.77	-4.71
53	-60.85	-54.55	-51.49	-48.17	-42.13	-32.76	-23.40	-17.36	-14.04	-10.98	-4.67
54	-61.09	-54.97	-52.01	-48.79	-42.94	-33.87	-24.79	-18.94	-15.72	-12.76	-6.64
55	-64.42	-57.77	-54.55	-51.04	-44.68	-34.81	-24.94	-18.57	-15.07	-11.85	-5.20
56	-63.87	-57.54	-54.43	-51.15	-45.09	-35.70	-26.31	-20.26	-16.93	-13.86	-7.54
57	-67.52	-59.94	-56.27	-52.28	-45.02	-33.77	-22.52	-15.27	-11.28	-7.61	-0.03
58	-77.60	-67.98	-63.31	-58.24	-49.03	-34.75	-20.47	-11.25	-6.18	-1.52	8.10
59	-75.47	-66.54	-62.21	-57.50	-48.94	-35.68	-22.41	-13.85	-9.14	-4.81	4.12
60	-83.86	-73.54	-68.54	-63.10	-53.22	-37.90	-22.58	-12.70	-7.25	-2.26	8.07
61	-75.26	-66.51	-62.26	-57.65	-49.26	-36.27	-23.27	-14.88	-10.27	-6.03	2.73
62	-71.30	-63.06	-59.08	-54.74	-46.85	-34.63	-22.41	-14.52	-10.18	-6.20	2.04
63	-67.28	-59.58	-55.85	-51.79	-44.43	-33.00	-21.57	-14.20	-10.15	-6.42	1.28
64	-63.32	-56.15	-52.67	-48.89	-42.02	-31.37	-20.72	-13.85	-10.07	-6.59	0.58
65	-59.37	-52.71	-49.49	-45.98	-39.62	-29.74	-19.86	-13.50	-9.99	-6.77	-0.11
66	-55.40	-49.27	-46.30	-43.07	-37.20	-28.10	-19.00	-13.13	-9.90	-6.93	-0.80
67	-51.45	-45.84	-43.12	-40.17	-34.80	-26.47	-18.15	-12.78	-9.82	-7.11	-1.50
68	-47.43	-42.36	-39.90	-37.23	-32.37	-24.84	-17.31	-12.45	-9.78	-7.32	-2.25
69	-43.47	-38.92	-36.72	-34.32	-29.96	-23.21	-16.45	-12.09	-9.69	-7.49	-2.94
70	-39.52	-35.49	-33.54	-31.41	-27.56	-21.57	-15.59	-11.73	-9.51	-7.65	-3.83

TABLE 6.7. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

JULY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-6.26	-4.80	-4.09	-3.32	-1.92	.25	2.42	3.82	4.60	5.30	6.77
1	-10.39	-7.56	-6.18	-4.63	-1.97	2.23	6.44	9.16	10.65	12.02	14.96
2	-11.03	-8.07	-6.63	-5.00	-2.22	2.18	6.58	9.42	10.99	12.42	15.30
3	-11.18	-8.17	-6.72	-5.13	-2.20	2.20	6.66	9.53	11.11	12.57	15.57
4	-11.68	-8.59	-7.10	-5.47	-2.51	2.07	6.65	9.60	11.23	12.72	15.81
5	-12.11	-9.02	-7.57	-5.89	-2.94	1.65	6.23	9.19	10.82	12.31	15.40
6	-12.93	-9.77	-8.24	-6.58	-3.56	1.13	5.81	8.83	10.50	12.03	15.18
7	-14.27	-10.97	-9.37	-7.63	-4.47	.43	5.33	8.49	10.23	11.83	15.13
8	-16.73	-13.01	-11.21	-9.25	-5.09	-.17	5.35	8.91	10.37	12.67	16.38
9	-21.02	-16.52	-14.34	-11.76	-7.66	-.97	5.71	10.02	12.39	14.57	19.07
10	-24.93	-19.70	-17.17	-14.42	-9.41	-1.65	6.11	11.11	13.86	16.40	21.62
11	-29.16	-23.16	-20.25	-17.10	-11.35	-2.45	5.46	12.21	15.37	18.27	24.27
12	-33.11	-26.47	-23.28	-19.76	-13.40	-3.54	6.32	12.68	16.18	19.40	26.04
13	-35.95	-28.98	-25.61	-21.94	-15.27	-4.32	5.42	12.09	15.75	19.13	26.10
14	-32.98	-26.88	-23.92	-20.70	-14.85	-5.78	3.29	9.14	12.26	15.32	21.43
15	-26.95	-22.28	-20.03	-17.57	-13.10	-6.19	.75	5.21	7.67	9.93	14.60
16	-21.45	-18.00	-16.33	-14.51	-11.21	-6.08	-.56	2.34	4.16	5.84	9.29
17	-18.13	-15.54	-14.22	-12.92	-10.44	-8.59	-2.74	-.26	1.10	2.36	4.95
18	-16.86	-14.84	-13.85	-12.79	-10.85	-7.84	-4.84	-2.90	-1.83	-.85	1.17
19	-18.71	-16.87	-15.69	-14.61	-12.66	-9.64	-5.61	-4.66	-3.59	-2.60	-.57
20	-21.84	-19.56	-18.45	-17.25	-15.06	-11.68	-6.11	-4.90	-3.80	-2.80	-1.52
21	-22.64	-20.53	-19.50	-18.33	-16.36	-13.21	-10.07	-8.04	-6.33	-5.90	-3.74
22	-23.59	-21.52	-20.52	-19.43	-17.45	-14.37	-11.30	-9.32	-8.23	-7.23	-5.16
23	-25.33	-23.08	-21.99	-20.80	-18.65	-15.31	-11.97	-9.82	-8.63	-7.54	-5.29
24	-26.31	-24.06	-22.97	-21.78	-19.62	-16.28	-12.94	-10.78	-9.59	-8.50	-6.25
25	-28.18	-25.63	-24.49	-23.17	-20.79	-17.09	-13.39	-11.01	-9.70	-8.49	-6.00
26	-29.77	-27.04	-25.72	-24.29	-21.68	-17.63	-13.59	-10.98	-9.54	-8.22	-5.50
27	-31.45	-28.43	-26.97	-25.38	-22.50	-18.02	-13.54	-10.66	-9.07	-7.61	-4.59
28	-36.65	-32.96	-28.66	-25.24	-22.66	-18.67	-14.67	-12.09	-10.67	-9.37	-6.68
29	-35.28	-31.98	-27.19	-23.76	-23.18	-19.16	-15.15	-12.56	-11.14	-9.83	-7.12
30	-31.89	-28.18	-24.75	-21.29	-23.62	-19.50	-15.37	-12.71	-11.24	-9.90	-7.12
31	-35.04	-31.39	-28.52	-25.91	-23.99	-19.47	-14.94	-12.02	-10.42	-9.84	-5.89
32	-35.86	-30.42	-28.90	-27.24	-24.24	-19.57	-14.91	-11.90	-10.25	-9.72	-5.88
33	-35.67	-30.56	-29.05	-27.41	-24.44	-19.82	-15.20	-12.23	-10.59	-9.08	-5.97
34	-35.34	-32.12	-30.53	-28.80	-25.65	-20.76	-15.88	-12.73	-11.00	-9.40	-5.11
35	-36.07	-34.53	-32.82	-30.96	-27.58	-22.33	-17.09	-13.71	-11.85	-10.13	-6.60
36	-38.33	-34.99	-33.37	-31.61	-28.40	-23.44	-18.47	-15.27	-13.51	-11.89	-8.54
37	-40.31	-36.89	-35.23	-33.42	-30.14	-25.05	-19.97	-16.69	-14.88	-13.22	-9.80
38	-42.38	-38.44	-36.99	-35.74	-33.55	-26.02	-21.54	-17.71	-15.05	-13.61	-9.57
39	-45.28	-41.21	-39.26	-37.13	-35.27	-27.24	-21.28	-17.42	-15.29	-13.34	-9.30
40	-48.28	-44.03	-42.73	-39.73	-38.67	-29.37	-23.06	-19.00	-16.75	-14.70	-10.45
41	-48.68	-44.67	-42.73	-40.62	-36.79	-30.44	-24.90	-21.06	-18.95	-17.01	-13.01
42	-51.25	-47.03	-44.98	-42.76	-38.73	-32.47	-26.21	-22.17	-19.94	-17.90	-13.68
43	-53.41	-49.22	-47.19	-44.98	-40.97	-34.75	-28.53	-24.52	-22.31	-20.28	-16.09
44	-56.23	-51.74	-49.57	-47.21	-42.92	-36.27	-29.61	-25.32	-22.96	-20.79	-16.31
45	-58.65	-54.40	-50.24	-47.89	-43.63	-37.01	-30.40	-26.13	-23.78	-21.63	-17.17
46	-59.46	-54.64	-52.30	-49.76	-45.14	-37.98	-30.81	-26.19	-23.65	-21.51	-16.49
47	-61.44	-56.91	-54.02	-51.31	-46.40	-38.78	-31.15	-26.24	-23.53	-21.04	-15.91
48	-61.24	-56.20	-53.76	-51.10	-46.28	-38.80	-31.32	-26.50	-23.84	-21.40	-16.36
49	-61.13	-56.23	-53.85	-51.25	-46.54	-39.24	-31.94	-27.23	-24.64	-22.26	-17.34
50	-63.62	-58.19	-55.56	-52.70	-47.50	-39.45	-31.39	-26.19	-23.33	-20.70	-15.27
51	-65.29	-60.35	-57.47	-54.34	-48.65	-39.84	-31.02	-25.34	-22.21	-19.33	-13.39
52	-68.76	-62.30	-59.17	-55.77	-49.58	-40.00	-30.41	-24.23	-20.83	-17.70	-11.24
53	-71.78	-64.94	-61.03	-57.22	-50.29	-39.54	-28.79	-21.86	-18.05	-14.54	-7.30
54	-70.15	-63.30	-59.99	-56.38	-49.82	-39.66	-29.49	-22.94	-19.33	-16.01	-9.17
55	-71.73	-64.44	-60.91	-57.07	-50.09	-39.27	-28.45	-21.44	-17.44	-14.11	-6.82
56	-74.04	-65.98	-62.08	-57.83	-50.11	-38.15	-26.18	-19.47	-14.22	-10.31	-2.25
57	-75.62	-67.42	-63.45	-59.13	-51.28	-39.11	-26.94	-19.09	-14.77	-10.80	-2.60
58	-76.85	-68.08	-63.98	-59.52	-51.42	-38.85	-26.29	-18.19	-13.72	-9.62	-1.16
59	-76.48	-69.28	-64.87	-60.06	-51.33	-37.80	-24.27	-15.54	-10.73	-6.32	2.80
60	-83.27	-73.40	-68.62	-63.41	-53.96	-39.31	-24.65	-15.20	-10.00	-5.22	4.66
61	-83.31	-73.04	-68.07	-62.66	-52.83	-37.59	-22.35	-12.52	-7.11	-2.14	8.13
62	-78.37	-68.82	-64.20	-59.17	-50.03	-35.87	-21.70	-12.57	-7.54	-2.81	6.53
63	-73.67	-64.79	-60.50	-55.82	-47.32	-34.15	-20.98	-12.46	-7.80	-3.51	5.37
64	-68.75	-60.88	-56.63	-52.34	-44.93	-32.43	-20.33	-12.52	-8.22	-4.27	3.88
65	-63.88	-56.43	-52.82	-48.90	-41.77	-30.71	-19.65	-12.33	-8.60	-4.99	2.46
66	-59.96	-52.23	-48.97	-45.42	-38.98	-28.99	-19.00	-12.55	-9.02	-5.75	.98
67	-54.08	-48.05	-45.13	-41.96	-36.20	-27.27	-18.34	-12.58	-9.41	-6.50	-4.48
68	-49.47	-44.18	-41.50	-38.67	-33.52	-25.55	-17.57	-12.43	-9.60	-7.00	-1.62
69	-44.54	-39.83	-37.64	-35.18	-30.73	-23.83	-16.93	-12.48	-10.03	-7.77	-3.12
70	-39.72	-35.76	-33.84	-31.76	-27.98	-22.11	-16.24	-12.46	-10.38	-8.46	-4.81

TABLE 6.8. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

AUGUST

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-6.80	-5.31	-4.52	-3.80	-2.32	-1.16	2.05	3.48	4.26	4.99	6.47
1	-12.10	-9.14	-7.70	-6.14	-4.29	-1.11	5.51	8.35	9.92	11.36	14.32
2	-12.35	-9.30	-7.87	-6.21	-4.23	1.24	5.77	8.63	10.30	11.78	14.83
3	-12.62	-9.48	-7.96	-6.31	-4.30	1.36	6.03	8.93	10.69	12.21	15.35
4	-12.98	-9.73	-8.15	-6.43	-4.32	1.52	5.35	9.47	11.13	12.76	16.02
5	-14.04	-10.50	-8.87	-7.04	-4.71	1.46	6.02	9.96	11.79	13.48	16.96
6	-15.26	-11.62	-9.86	-7.95	-4.47	.93	5.32	9.80	11.72	13.43	17.11
7	-16.23	-12.47	-10.66	-8.66	-4.08	.49	6.00	9.66	11.63	13.45	17.21
8	-17.54	-13.62	-11.72	-9.65	-3.83	-.06	5.76	9.52	11.59	13.49	17.41
9	-19.96	-15.56	-13.46	-11.16	-3.97	-.47	6.02	10.21	12.52	14.64	19.02
10	-24.19	-19.33	-16.33	-13.61	-3.58	-.73	7.03	12.06	14.83	17.38	22.64
11	-28.19	-22.11	-19.17	-15.90	-3.14	-1.12	7.90	13.72	16.33	19.87	25.95
12	-31.80	-25.03	-21.75	-18.13	-2.70	-1.65	8.39	14.87	18.44	21.72	28.49
13	-33.03	-26.11	-22.70	-19.11	-2.43	-2.22	8.05	14.68	18.23	21.68	28.60
14	-30.21	-24.09	-21.12	-17.30	-2.04	-2.95	6.13	11.99	15.22	18.18	24.30
15	-23.55	-19.01	-16.82	-14.42	-1.09	-3.36	3.37	7.71	10.10	12.29	16.83
16	-18.76	-15.43	-13.93	-12.03	-.90	-3.97	.36	4.14	5.39	7.50	10.82
17	-16.97	-14.37	-13.11	-11.74	-.55	-5.40	-1.54	.95	2.32	3.58	6.18
18	-16.57	-14.45	-13.43	-12.32	-1.02	-7.16	-4.02	-2.00	-.33	.14	2.25
19	-15.12	-13.92	-12.85	-12.59	-.93	-6.07	-3.91	-2.31	-1.74	-.46	.46
20	-21.46	-19.21	-17.17	-15.93	-14.78	-11.44	-3.10	-5.95	-4.76	-3.67	-1.42
21	-22.53	-20.38	-19.27	-18.20	-16.13	-12.93	-9.74	-7.67	-6.54	-5.49	-3.34
22	-23.37	-21.31	-20.31	-19.23	-17.25	-14.19	-11.13	-9.15	-8.07	-7.07	-5.00
23	-25.10	-22.83	-21.77	-20.54	-18.37	-15.00	-11.64	-9.47	-8.28	-7.18	-4.91
24	-25.51	-24.11	-22.95	-21.63	-19.39	-15.84	-12.28	-9.38	-8.17	-7.56	-5.16
25	-27.50	-25.08	-23.91	-22.62	-20.32	-16.72	-13.13	-10.82	-9.54	-8.37	-5.95
26	-28.83	-26.24	-24.98	-23.63	-21.16	-17.33	-13.50	-11.03	-9.67	-8.42	-5.83
27	-30.38	-27.63	-26.30	-24.95	-22.21	-18.12	-14.03	-11.40	-9.95	-8.61	-5.86
28	-29.49	-26.93	-25.69	-24.34	-21.89	-18.09	-14.29	-11.84	-10.49	-9.25	-6.69
29	-30.44	-27.88	-26.63	-25.28	-22.82	-19.02	-15.21	-12.75	-11.40	-10.16	-7.53
30	-30.30	-28.25	-26.97	-25.57	-23.03	-19.10	-15.16	-12.62	-11.22	-9.94	-7.29
31	-32.58	-29.58	-28.12	-26.54	-23.66	-19.20	-15.74	-12.86	-11.28	-9.82	-5.82
32	-32.63	-29.53	-28.03	-26.39	-23.43	-19.83	-14.23	-11.26	-9.63	-8.13	-5.03
33	-32.97	-29.80	-28.26	-26.59	-23.56	-18.85	-14.15	-11.11	-9.44	-7.91	-4.74
34	-34.94	-31.33	-29.64	-27.79	-24.44	-19.24	-14.04	-10.68	-8.84	-7.14	-3.64
35	-38.09	-34.10	-32.17	-30.07	-26.26	-20.35	-14.44	-10.63	-8.53	-6.60	-2.62
36	-41.20	-36.59	-34.36	-31.93	-27.51	-20.66	-13.82	-9.40	-6.97	-4.74	-1.13
37	-42.97	-38.18	-35.86	-33.34	-28.76	-21.65	-14.54	-9.96	-7.43	-5.11	-.32
38	-43.15	-38.36	-36.04	-33.51	-28.93	-21.82	-14.71	-10.13	-7.60	-5.28	-.49
39	-43.72	-38.91	-36.58	-34.04	-29.43	-22.29	-15.15	-10.54	-7.95	-5.67	-.86
40	-45.94	-40.94	-38.51	-35.88	-31.09	-23.66	-16.23	-11.44	-8.81	-6.38	-1.38
41	-45.58	-40.98	-38.75	-36.33	-31.93	-25.10	-18.27	-13.87	-11.44	-9.22	-4.62
42	-50.04	-44.63	-42.01	-39.15	-33.97	-25.93	-17.89	-12.71	-9.86	-7.24	-1.82
43	-53.75	-47.82	-44.95	-41.83	-36.16	-27.36	-18.57	-12.90	-9.78	-6.91	-.98
44	-57.99	-51.15	-47.84	-44.24	-37.70	-27.55	-17.41	-10.87	-7.26	-3.95	2.89
45	-57.44	-50.91	-47.75	-44.31	-38.06	-28.37	-18.68	-12.44	-9.00	-5.83	.69
46	-57.57	-50.95	-47.75	-44.26	-37.93	-28.11	-18.29	-11.96	-8.47	-5.27	1.35
47	-56.63	-50.20	-47.08	-43.69	-37.53	-27.97	-18.42	-12.26	-8.86	-5.75	.69
48	-56.39	-49.95	-46.83	-43.44	-37.28	-27.72	-18.16	-12.00	-8.61	-5.49	.95
49	-56.77	-50.14	-46.93	-43.44	-37.10	-27.27	-17.44	-11.10	-7.60	-4.40	2.23
50	-58.96	-51.78	-48.30	-44.51	-37.64	-26.98	-16.32	-9.44	-5.66	-2.18	5.00
51	-61.11	-53.37	-49.62	-45.54	-38.12	-26.63	-15.14	-7.72	-3.64	.11	7.85
52	-62.74	-54.46	-50.45	-46.08	-38.15	-25.86	-13.56	-5.63	-1.27	2.74	11.03
53	-64.36	-55.35	-50.98	-46.23	-37.61	-24.23	-10.85	-2.23	2.52	6.89	15.90
54	-69.46	-59.00	-53.93	-49.41	-38.40	-22.86	-7.33	2.69	9.21	13.28	23.74
55	-67.88	-57.42	-52.35	-48.84	-36.83	-21.31	-5.78	4.23	9.74	14.80	25.26
56	-69.60	-58.21	-52.69	-46.68	-35.78	-18.87	-1.97	8.94	14.94	20.46	31.85
57	-69.38	-57.80	-52.20	-46.10	-35.02	-17.84	-.66	10.42	16.52	22.12	33.69
58	-70.52	-58.29	-52.37	-45.93	-34.22	-16.07	2.08	13.79	20.23	26.15	38.38
59	-69.09	-55.70	-49.21	-42.15	-29.33	-9.46	10.42	23.23	30.29	36.78	50.17
60	-65.54	-52.81	-46.64	-39.94	-27.75	-8.85	10.04	22.23	28.94	35.10	47.83
61	-63.59	-51.24	-45.26	-38.74	-26.92	-8.58	9.76	21.59	28.10	34.08	46.44
62	-59.18	-47.76	-42.22	-36.20	-25.27	-8.31	8.65	19.58	25.60	31.14	42.56
63	-54.56	-44.12	-39.06	-33.55	-23.55	-8.03	7.48	17.49	23.00	28.06	38.52
64	-50.06	-40.56	-35.96	-30.95	-21.86	-7.76	6.34	15.43	20.44	25.04	34.54
65	-45.94	-37.30	-33.12	-28.57	-20.30	-7.48	5.34	13.60	18.16	22.34	30.97
66	-41.66	-33.92	-30.18	-26.10	-18.69	-7.21	4.27	11.68	15.76	19.51	27.24
67	-37.58	-30.70	-27.37	-23.74	-17.15	-6.94	3.27	9.86	13.49	16.82	23.70
68	-33.77	-27.68	-24.73	-21.52	-15.70	-6.66	2.37	8.20	11.41	14.36	20.45
69	-30.51	-25.09	-22.47	-19.61	-14.43	-6.39	1.65	6.83	9.69	12.31	17.73
70	-27.63	-22.80	-20.46	-17.91	-13.28	-6.11	1.06	5.68	8.23	10.57	15.00

TABLE 6.9. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

SEPTEMBER

Cumulative Percentage Probability											
Alt.(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.12	-8.97	-7.93	-6.80	-4.74	-1.55	1.64	3.70	4.33	5.37	8.02
1	-20.61	-16.33	-14.27	-12.01	-7.92	-1.58	4.76	8.85	11.10	13.17	17.44
2	-20.09	-15.65	-13.51	-11.17	-6.92	-1.34	6.24	10.48	12.32	14.38	19.40
3	-18.86	-14.51	-12.40	-10.11	-5.94	-1.02	6.98	11.15	13.44	15.55	19.90
4	-18.40	-14.04	-11.93	-9.63	-5.46	1.01	7.48	11.66	13.96	16.07	20.43
5	-19.14	-14.59	-12.38	-9.98	-5.03	1.13	7.88	12.24	14.64	16.84	21.39
6	-19.66	-14.98	-12.72	-10.25	-5.79	1.17	8.11	12.59	15.05	17.32	21.92
7	-21.12	-16.04	-13.58	-10.90	-6.04	1.51	9.05	13.91	16.59	19.05	24.13
8	-22.93	-17.34	-14.63	-11.69	-6.34	1.35	10.24	15.53	18.54	21.24	26.43
9	-24.30	-18.22	-15.20	-12.08	-6.28	2.76	11.78	17.60	20.20	23.75	29.82
10	-26.72	-19.95	-16.09	-13.11	-6.63	3.42	13.47	19.95	23.52	26.30	33.57
11	-29.33	-21.86	-18.24	-14.30	-7.15	3.35	15.04	22.19	26.13	29.75	37.22
12	-30.50	-22.63	-18.81	-14.66	-7.12	4.57	16.26	23.80	27.95	31.76	39.64
13	-31.90	-23.74	-19.79	-15.49	-7.69	4.42	16.52	24.33	28.62	32.57	40.77
14	-30.33	-22.84	-19.20	-15.25	-8.08	3.05	14.13	21.36	25.31	29.95	36.44
15	-25.95	-19.88	-16.94	-13.74	-7.92	1.05	10.10	15.92	19.12	22.00	28.13
16	-22.21	-17.41	-15.00	-12.57	-7.93	-0.86	6.25	10.94	13.36	15.69	20.49
17	-18.73	-15.01	-13.22	-11.26	-7.71	-2.20	3.32	6.87	8.83	10.62	14.34
18	-17.52	-14.43	-12.93	-11.30	-8.34	-2.75	0.85	3.81	5.44	6.34	10.03
19	-17.65	-14.95	-13.64	-12.22	-9.63	-5.62	-1.61	0.97	2.40	3.70	6.41
20	-18.73	-16.16	-14.91	-13.56	-11.09	-7.27	-3.45	-0.99	1.37	1.62	4.19
21	-18.85	-16.53	-15.41	-14.19	-11.97	-8.53	-5.09	-2.87	-1.65	-0.52	1.79
22	-19.45	-17.24	-16.17	-15.00	-12.89	-9.61	-6.33	-4.21	-3.05	-1.78	0.23
23	-20.65	-18.37	-17.25	-16.02	-13.80	-10.35	-6.91	-4.69	-3.46	-2.34	-0.02
24	-21.87	-19.41	-18.22	-16.92	-14.57	-10.91	-7.26	-4.91	-3.61	-2.42	0.04
25	-23.30	-20.66	-19.39	-17.98	-15.45	-11.52	-7.59	-5.06	-3.67	-2.38	0.26
26	-24.76	-21.87	-20.47	-18.94	-16.17	-11.88	-7.58	-4.81	-3.29	-1.89	1.01
27	-25.63	-22.57	-21.09	-19.47	-16.53	-11.98	-7.43	-4.50	-2.88	-1.40	1.67
28	-25.68	-22.41	-20.83	-19.11	-15.98	-11.14	-6.29	-3.16	-1.44	0.14	3.40
29	-26.49	-23.09	-21.44	-19.65	-16.40	-11.35	-6.30	-3.04	-1.25	0.40	3.80
30	-26.25	-21.97	-20.38	-18.65	-15.52	-10.65	-5.78	-2.64	-0.92	0.67	3.95
31	-26.04	-22.44	-20.70	-18.80	-15.35	-10.01	-4.66	-1.22	0.68	2.43	6.03
32	-25.86	-22.21	-20.44	-18.52	-15.02	-9.61	-4.19	-0.70	1.22	2.99	6.64
33	-26.73	-22.76	-20.83	-18.74	-14.94	-9.05	-3.15	0.65	2.74	4.67	8.64
34	-26.96	-22.77	-20.74	-18.53	-14.51	-8.29	-2.07	1.95	4.16	6.19	10.38
35	-27.89	-23.39	-21.21	-18.83	-14.52	-7.84	-1.16	3.15	5.52	7.71	12.21
36	-27.04	-22.74	-20.65	-18.38	-14.26	-7.87	-1.47	2.65	4.92	7.01	11.31
37	-28.67	-24.84	-22.51	-19.96	-15.34	-8.17	-1.00	3.62	6.16	8.50	13.33
38	-30.73	-25.79	-23.40	-20.80	-16.08	-8.76	-1.43	3.29	5.89	8.28	13.22
39	-30.13	-25.37	-23.03	-20.49	-15.88	-8.72	-1.56	3.06	5.60	7.93	12.76
40	-31.66	-26.45	-23.96	-21.18	-16.19	-8.46	-0.72	4.26	7.01	9.53	14.74
41	-35.54	-29.48	-26.55	-23.36	-17.57	-9.59	-0.39	6.18	9.37	12.30	18.35
42	-36.70	-30.56	-27.58	-24.34	-18.46	-9.34	-0.22	5.66	8.50	11.87	18.02
43	-41.43	-34.48	-31.11	-27.45	-20.79	-10.47	-1.15	6.51	10.17	13.54	20.44
44	-38.05	-31.58	-28.45	-25.04	-18.85	-9.25	0.35	6.54	9.94	13.08	19.54
45	-33.95	-28.05	-25.20	-22.09	-16.44	-7.69	1.06	6.71	9.81	12.67	18.57
46	-31.61	-25.88	-23.10	-20.08	-14.58	-6.07	2.45	7.94	10.96	13.74	19.47
47	-32.19	-26.14	-23.21	-20.02	-14.23	-5.25	3.73	9.52	12.71	15.64	21.69
48	-32.56	-26.43	-23.46	-20.23	-14.35	-5.25	3.86	9.73	12.96	15.93	22.07
49	-31.52	-25.35	-22.36	-19.10	-13.19	-4.02	5.15	11.07	14.32	17.31	23.49
50	-31.31	-24.75	-21.57	-18.11	-11.83	-2.08	7.66	13.95	17.41	20.59	27.15
51	-35.74	-28.23	-24.58	-20.62	-13.43	-2.27	8.89	16.09	20.05	23.69	31.21
52	-37.05	-29.38	-25.67	-21.63	-14.30	-2.92	8.45	15.79	19.83	23.54	31.20
53	-38.39	-30.10	-26.09	-21.72	-13.79	-1.49	10.81	18.75	23.11	27.13	35.42
54	-37.24	-28.68	-24.58	-20.02	-11.82	0.89	13.60	21.79	26.31	30.45	39.01
55	-36.64	-27.99	-23.79	-19.23	-10.94	1.31	14.76	23.05	27.61	31.81	40.47
56	-34.62	-26.40	-22.42	-18.08	-10.21	2.00	14.21	22.08	26.42	30.40	38.62
57	-31.41	-23.68	-19.94	-15.87	-8.47	3.01	14.48	21.88	25.36	29.70	37.43
58	-26.80	-19.08	-15.35	-11.28	-3.89	7.56	19.02	26.41	30.47	34.21	41.93
59	-25.91	-18.45	-14.84	-10.91	-3.77	7.31	18.38	25.52	29.45	33.07	40.53
60	-38.41	-27.83	-22.70	-17.12	-6.99	8.71	24.42	34.55	40.13	45.25	55.84
61	-38.44	-27.93	-22.84	-17.30	-7.23	8.37	23.97	34.04	39.58	44.67	55.18
62	-37.71	-27.44	-22.47	-17.05	-7.22	8.02	23.26	33.09	38.51	43.48	53.75
63	-37.26	-27.17	-22.28	-16.97	-7.30	7.67	22.65	32.31	37.63	42.52	52.61
64	-36.53	-26.68	-21.91	-16.72	-7.29	7.32	21.94	31.37	36.56	41.33	51.18
65	-36.04	-26.38	-21.70	-16.60	-7.35	6.99	21.33	30.58	35.67	40.35	50.01
66	-35.55	-26.08	-21.49	-16.49	-7.42	6.64	20.71	29.78	34.77	39.35	48.84
67	-34.82	-25.59	-21.12	-16.25	-7.41	6.29	20.00	28.84	33.70	38.17	47.41
68	-34.37	-25.32	-20.93	-16.16	-7.49	5.95	19.39	28.06	32.83	37.22	46.27
69	-33.64	-24.83	-20.56	-15.92	-7.48	5.60	18.68	27.11	31.76	36.03	44.84
70	-33.16	-24.53	-20.35	-15.81	-7.55	5.25	18.06	26.31	30.86	35.04	43.56

TABLE 6.10. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

OCTOBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.08	-8.33	-7.20	-6.75	-4.09	-1.49	1.70	3.77	4.90	5.94	8.10
1	-20.65	-16.43	-14.46	-12.25	-3.26	-2.06	4.14	8.13	10.33	12.36	16.53
2	-18.66	-14.34	-12.25	-7.97	-6.03	1.53	6.99	11.13	13.40	15.50	19.82
3	-15.35	-12.60	-10.20	-4.26	-4.04	2.41	3.87	13.03	15.32	17.43	21.78
4	-16.18	-11.66	-9.46	-7.16	-2.78	2.21	10.61	14.93	17.30	19.49	24.00
5	-16.77	-11.00	-9.33	-5.77	-2.01	5.37	12.76	17.52	20.14	22.55	27.52
6	-17.43	-11.06	-9.30	-6.41	-1.17	5.06	15.09	20.33	22.22	25.88	31.35
7	-18.38	-12.58	-9.63	-5.41	-4.43	3.72	17.33	23.30	27.13	30.12	36.33
8	-20.00	-13.07	-9.70	-6.07	1.50	10.84	11.12	17.74	21.39	34.75	41.07
9	-22.39	-14.44	-10.50	-5.33	1.22	13.03	24.83	32.45	36.04	40.49	48.44
10	-24.85	-15.87	-11.57	-6.78	1.81	15.13	23.46	37.05	41.78	46.13	55.11
11	-26.41	-16.66	-11.93	-6.73	2.55	17.04	21.52	40.30	45.01	50.73	60.49
12	-26.23	-16.25	-11.41	-6.15	3.40	10.21	23.13	42.59	47.84	52.68	62.66
13	-24.34	-15.26	-10.51	-5.56	3.52	17.35	22.03	41.26	46.32	50.36	60.55
14	-21.75	-13.26	-9.17	-4.71	3.40	15.98	20.56	36.67	41.14	45.24	53.72
15	-13.03	-11.01	-7.61	-3.91	2.32	13.24	23.67	30.30	34.00	37.50	44.52
16	-15.01	-10.13	-7.32	-4.38	1.05	1.46	17.91	23.35	26.34	29.09	34.77
17	-15.15	-10.37	-3.11	-5.65	-1.17	5.78	12.70	17.17	19.64	21.92	26.57
18	-15.03	-11.11	-3.22	-7.16	-3.42	2.39	3.19	11.34	14.00	15.80	19.80
19	-14.35	-11.63	-10.02	-8.25	-5.10	-1.13	4.74	7.92	9.67	11.27	14.59
20	-14.98	-11.99	-10.55	-8.98	-6.12	-1.69	2.74	5.60	7.18	8.62	11.61
21	-15.13	-12.77	-11.00	-9.51	-6.31	-2.62	1.57	4.28	5.76	7.13	9.95
22	-15.16	-12.65	-11.20	-7.79	-7.24	-7.27	1.69	3.25	4.66	5.95	8.62
23	-16.44	-13.57	-12.17	-10.66	-7.90	-3.64	1.63	3.39	4.90	6.30	9.17
24	-17.04	-14.00	-12.53	-10.93	-8.02	-3.52	1.99	3.90	5.50	6.97	10.01
25	-17.45	-14.24	-12.60	-11.00	-7.33	-3.17	1.59	4.65	6.34	7.90	11.10
26	-16.79	-15.15	-13.29	-11.47	-7.58	-2.57	2.84	6.32	8.24	10.01	13.65
27	-13.31	-15.30	-13.40	-11.42	-7.66	-1.84	3.93	7.74	9.81	11.71	15.63
28	-17.85	-13.90	-11.99	-9.90	-6.12	-2.25	5.62	9.41	11.49	13.41	17.36
29	-18.70	-14.73	-12.16	-9.84	-5.62	1.91	7.45	11.67	13.99	16.12	20.53
30	-19.66	-14.30	-12.35	-9.75	-5.04	2.27	9.58	14.30	16.89	19.28	24.20
31	-20.29	-14.93	-12.34	-9.52	-4.39	3.55	11.50	16.63	19.45	22.04	27.40
32	-20.49	-14.65	-11.81	-8.73	-3.14	5.54	14.22	19.81	22.90	25.73	31.57
33	-20.82	-14.39	-11.27	-7.89	-1.72	7.84	17.39	23.55	26.94	30.06	36.50
34	-20.62	-13.76	-10.43	-6.81	-2.24	9.96	20.15	26.72	30.34	33.67	40.53
35	-24.28	-16.28	-12.41	-3.19	-1.54	11.33	23.20	30.45	35.06	38.94	46.93
36	-27.68	-18.69	-14.34	-3.60	-1.99	12.35	25.69	34.30	39.03	43.39	52.38
37	-30.63	-20.71	-15.91	-10.68	-1.19	13.52	28.24	37.73	42.96	47.76	57.67
38	-32.02	-21.42	-16.28	-10.70	-1.55	15.19	30.93	41.07	46.66	51.80	62.40
39	-31.36	-20.28	-14.92	-9.09	1.51	17.95	34.38	44.98	50.82	56.18	67.25
40	-29.51	-18.30	-12.87	-6.97	3.76	20.40	37.03	47.76	53.67	59.10	70.30
41	-28.70	-17.44	-11.99	-6.05	4.74	21.46	38.18	48.96	54.90	60.36	71.62
42	-29.95	-18.03	-12.26	-5.98	5.42	23.11	40.80	52.21	58.49	64.26	76.18
43	-29.23	-17.28	-11.50	-5.20	6.23	23.96	41.69	53.12	59.42	65.20	77.15
44	-27.93	-15.93	-10.11	-3.78	7.71	25.53	43.35	54.84	61.17	66.98	78.99
45	-27.43	-15.07	-9.09	-2.58	9.25	27.58	45.92	57.74	64.25	70.24	82.59
46	-25.92	-13.49	-7.47	-1.92	10.98	29.43	47.88	59.78	66.33	72.35	84.78
47	-25.08	-12.44	-6.32	1.34	12.44	31.19	49.95	62.05	68.71	74.83	87.47
48	-23.33	-10.63	-4.48	2.21	14.36	33.21	52.05	64.20	70.90	77.04	89.74
49	-24.10	-10.77	-4.31	2.72	15.47	35.26	55.05	67.81	74.83	81.29	94.62
50	-22.27	-8.97	-2.53	4.48	17.20	36.94	56.68	69.40	76.41	82.85	96.15
51	-23.61	-10.00	-3.41	3.77	16.79	36.99	57.19	70.22	77.40	83.99	97.60
52	-20.64	-7.20	-1.69	6.39	19.26	39.21	59.16	72.03	79.11	85.62	99.05
53	-17.31	-4.88	1.39	8.20	20.58	39.77	58.96	71.34	78.15	84.42	97.35
54	-15.84	-3.09	3.08	9.80	22.00	40.92	59.84	72.04	78.76	84.93	97.67
55	-17.57	-4.59	1.70	8.55	20.98	40.25	59.53	71.96	78.81	85.10	98.08
56	-19.29	-5.96	1.49	7.52	20.28	40.06	59.85	72.60	79.63	86.09	99.41
57	-20.51	-6.84	-1.22	6.99	20.07	40.37	60.66	73.74	80.95	87.57	101.24
58	-21.89	-8.22	-1.60	5.60	18.68	38.96	59.24	72.32	79.53	86.14	99.81
59	-19.96	-6.10	1.13	6.90	19.21	38.30	57.38	69.69	76.47	82.69	95.55
60	-23.46	-10.17	-3.73	3.28	16.00	35.74	55.47	68.19	75.20	81.64	94.93
61	-23.25	-10.36	-4.11	2.68	15.02	34.16	53.30	65.64	72.44	78.68	91.57
62	-23.92	-11.23	-5.09	1.60	13.75	32.58	51.41	63.56	70.24	76.39	89.07
63	-24.28	-11.87	-5.85	1.69	12.58	31.01	49.44	61.32	67.87	73.88	86.30
64	-24.91	-12.71	-6.80	-1.36	11.32	29.43	47.55	59.23	65.66	71.57	83.78
65	-25.57	-13.57	-7.76	-1.44	10.05	27.96	45.67	57.16	63.49	69.30	81.30
66	-26.22	-14.43	-8.72	-2.50	8.78	26.28	43.78	55.06	61.27	66.98	78.77
67	-26.85	-15.27	-9.66	-3.56	7.52	24.71	41.89	52.98	59.08	64.69	76.27
68	-27.24	-15.93	-10.45	-4.49	6.34	23.13	39.93	50.75	56.72	62.20	73.51
69	-27.93	-16.82	-11.43	-5.58	5.06	21.55	38.05	48.69	54.54	59.93	71.04
70	-28.59	-17.68	-12.40	-6.65	3.79	19.98	36.17	46.61	52.36	57.69	69.59

TABLE 6.11. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

NOVEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.88	-7.04	-6.15	-5.13	-4.42	-3.88	2.05	3.81	4.78	5.59	7.52
1	-21.27	-18.64	-14.40	-11.96	-7.83	-6.67	6.20	10.63	13.07	15.31	19.93
2	-19.83	-14.95	-10.60	-10.00	-5.35	1.97	9.10	13.76	15.33	18.69	23.56
3	-18.41	-13.36	-10.61	-9.24	-7.46	4.10	11.01	15.45	19.11	21.56	26.62
4	-17.56	-12.28	-9.00	-8.30	-1.80	6.05	13.32	18.33	21.73	24.37	29.55
5	-18.00	-12.10	-8.25	-6.14	-1.40	8.27	17.02	22.67	25.70	28.63	34.53
6	-19.97	-12.32	-8.10	-5.59	1.73	10.65	20.55	26.70	30.40	33.62	40.23
7	-19.22	-11.97	-8.46	-4.64	2.00	12.65	23.60	29.74	34.50	38.07	45.31
8	-20.57	-12.48	-8.57	-4.31	1.43	15.43	27.43	35.17	39.47	43.35	51.43
9	-22.20	-13.16	-8.78	-4.00	4.04	18.10	31.40	40.13	44.00	49.28	56.32
10	-25.29	-15.02	-10.04	-4.63	5.21	20.45	35.71	45.54	50.36	55.94	65.21
11	-25.87	-14.95	-9.60	-3.90	6.86	22.77	39.30	49.45	55.20	60.49	71.42
12	-26.21	-14.94	-9.34	-3.34	7.59	24.42	41.29	52.19	59.17	63.69	75.05
13	-21.98	-11.49	-6.40	-1.89	6.14	24.70	40.27	50.30	55.63	60.90	71.39
14	-17.71	-8.59	-4.10	1.52	7.30	23.39	35.40	45.15	49.35	54.37	62.44
15	-13.58	-6.10	-2.47	1.47	6.64	10.75	30.36	38.00	41.97	45.59	53.07
16	-11.69	-5.43	-2.47	1.30	6.74	15.95	35.16	41.11	44.39	47.38	53.59
17	-10.97	-5.84	-2.35	1.05	4.27	11.89	30.32	34.43	37.14	39.63	44.76
18	-11.60	-7.22	-5.11	0.80	1.33	7.87	14.36	18.53	20.95	22.97	27.34
19	-11.67	-7.90	-6.06	-4.09	-4.48	5.11	10.71	14.32	16.31	18.12	21.90
20	-12.21	-8.71	-7.01	-5.17	-1.80	3.37	8.57	11.31	13.76	15.46	19.95
21	-13.55	-9.89	-8.11	-6.10	-2.67	2.77	3.21	11.71	13.65	15.42	19.04
22	-14.25	-10.42	-8.95	-6.54	-2.97	2.31	3.50	12.17	14.19	16.04	19.87
23	-14.37	-10.37	-8.43	-6.71	-2.43	1.47	0.42	13.25	15.37	17.31	21.32
24	-14.68	-10.31	-8.31	-6.05	-1.34	4.43	10.79	14.30	17.16	19.24	23.53
25	-15.92	-11.07	-8.75	-6.17	-1.53	5.66	12.66	17.00	20.05	22.40	27.25
26	-15.83	-10.72	-8.24	-5.54	-1.54	6.95	14.55	19.45	22.15	24.63	29.74
27	-15.03	-10.51	-7.83	-4.90	1.37	8.58	16.78	22.07	24.99	27.66	33.19
28	-18.79	-9.50	-3.09	-1.36	4.61	12.31	20.01	24.98	27.71	30.22	35.41
29	-11.84	-5.27	-2.47	1.57	6.10	14.67	23.24	28.76	31.81	34.60	40.38
30	-10.99	-4.72	-1.69	1.61	7.61	16.91	26.20	32.20	35.50	38.54	44.80
31	-9.66	-3.13	-1.05	3.36	9.56	19.17	28.78	34.98	38.39	41.52	48.00
32	-8.42	-1.42	1.82	5.35	11.76	21.70	31.63	38.04	41.57	44.81	51.51
33	-7.58	-1.32	3.20	7.02	13.97	24.75	35.52	42.87	46.30	49.81	57.07
34	-6.78	1.90	4.61	8.66	16.01	27.41	38.80	46.15	50.20	53.92	61.60
35	-7.15	1.04	5.00	9.32	17.16	29.31	41.47	49.31	53.62	57.59	65.78
36	-6.85	1.56	5.63	10.06	18.11	30.60	43.08	51.13	55.56	59.64	68.05
37	-6.99	2.68	6.87	11.44	19.73	32.59	45.45	53.75	58.31	62.51	71.17
38	-5.58	3.51	7.91	12.70	21.40	34.89	48.38	57.08	61.87	66.27	75.36
39	-2.12	6.74	11.04	15.71	24.20	37.36	50.52	59.01	63.68	67.98	76.94
40	2.22	9.17	13.50	18.20	26.75	40.01	53.27	61.82	66.52	70.85	79.18
41	1.64	10.58	14.92	19.64	28.20	41.48	54.76	63.33	68.05	72.38	81.33
42	3.15	12.26	16.67	21.47	30.13	43.71	57.23	65.95	70.75	75.16	84.27
43	3.70	13.38	18.07	23.17	32.44	46.81	61.18	70.45	75.55	80.24	89.92
44	4.60	14.93	19.94	25.39	35.28	50.62	65.95	75.85	81.29	86.30	96.63
45	5.53	16.55	21.89	27.69	38.24	54.60	70.95	81.50	87.31	92.64	103.66
46	6.59	18.95	24.94	31.45	43.28	61.63	79.97	91.80	98.32	104.30	116.66
47	7.56	20.33	26.51	33.24	45.46	64.41	83.36	95.58	102.31	108.49	121.26
48	9.31	22.12	28.32	35.07	47.33	66.34	85.35	97.61	104.36	110.57	127.37
49	10.32	23.32	29.62	36.47	48.92	68.22	87.52	99.96	106.82	113.11	128.11
50	10.67	23.62	29.89	36.71	49.11	69.33	87.55	99.96	106.77	113.04	129.99
51	10.91	23.89	30.17	37.01	49.44	69.70	87.97	100.39	107.23	113.52	129.50
52	9.69	23.06	29.54	36.58	49.38	69.22	89.06	101.86	108.90	115.38	128.75
53	7.92	22.03	28.87	36.31	49.82	70.77	91.72	103.23	112.67	119.51	133.62
54	6.04	21.86	28.55	35.83	49.06	69.57	90.08	103.31	110.59	117.29	131.11
55	5.51	19.81	26.73	34.27	47.96	69.19	90.41	104.10	111.64	118.57	132.87
56	6.63	20.89	27.80	35.31	48.96	70.13	91.30	104.95	112.47	119.37	133.64
57	11.79	24.94	31.30	38.24	50.82	70.34	89.86	102.45	109.38	115.75	128.90
58	18.69	30.75	36.59	42.94	54.48	72.37	90.26	101.80	108.16	113.99	126.05
59	18.41	30.88	36.91	43.48	55.41	73.91	92.41	104.34	110.91	116.95	129.41
60	19.58	31.36	37.07	43.28	54.56	72.04	89.53	100.80	107.01	112.72	124.50
61	18.61	30.18	35.79	41.90	52.98	70.17	87.36	98.44	104.54	110.15	121.73
62	17.63	29.01	34.52	40.51	51.41	68.29	85.18	96.08	102.07	107.58	119.96
63	16.65	27.83	33.28	39.13	49.83	66.42	83.01	93.71	99.60	105.02	116.19
64	15.62	26.61	31.93	37.72	48.24	64.96	80.87	91.39	97.18	102.50	113.49
65	14.88	25.61	30.81	36.47	46.75	62.68	78.62	88.89	94.55	99.75	110.49
66	13.90	24.43	29.53	35.09	45.17	60.81	76.44	86.53	92.08	97.18	107.72
67	12.92	23.25	28.26	33.70	43.60	58.93	74.27	84.16	89.61	94.62	104.95
68	11.94	22.07	26.98	32.32	42.02	57.06	72.10	81.80	87.14	92.05	102.19
69	10.96	20.89	25.70	30.94	40.44	55.19	69.93	79.44	84.67	89.48	99.41

TABLE 6.12. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH
DECEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.55	-5.96	-5.00	-4.16	-2.55	-1.00	2.40	4.07	4.35	5.77	7.46
1	-18.84	-14.37	-12.20	-9.85	-5.57	-1.07	7.70	11.99	14.34	16.50	20.97
2	-16.77	-12.02	-9.74	-7.24	-2.71	4.32	11.35	15.32	19.39	23.07	25.41
3	-15.44	-10.30	-7.50	-4.70	-1.27	7.16	14.70	19.55	22.23	24.69	29.76
4	-15.04	-9.37	-6.60	-3.94	1.73	10.21	13.63	24.05	27.25	29.79	35.46
5	-15.48	-9.08	-5.89	-2.61	3.51	13.01	22.51	28.62	32.00	35.10	41.50
6	-15.30	-8.33	-4.20	-1.28	5.30	15.74	26.07	32.75	36.47	39.80	46.77
7	-16.27	-8.44	-4.68	-0.53	6.06	16.58	30.10	37.68	41.20	45.59	53.42
8	-19.23	-7.31	-4.00	-0.20	6.26	21.50	34.75	43.20	47.99	52.31	61.24
9	-20.66	-10.56	-5.56	-0.22	6.50	24.50	38.66	43.25	54.74	59.66	69.82
10	-22.50	-11.78	-5.37	0.02	10.70	27.33	44.02	54.74	60.60	66.07	77.27
11	-22.19	-10.56	-4.87	1.16	17.32	29.58	46.27	57.66	64.09	69.72	81.34
12	-20.24	-8.50	-2.30	3.20	14.43	31.30	43.31	60.24	66.73	72.41	84.14
13	-16.15	-5.18	0.17	5.20	16.42	30.71	40.69	60.48	65.20	70.58	81.55
14	-12.38	-2.57	2.10	7.30	16.75	31.32	45.89	55.23	60.45	65.21	75.02
15	-9.49	-1.04	3.65	7.51	18.50	28.12	40.69	43.70	53.22	57.31	65.76
16	-7.32	-0.50	2.31	5.50	15.45	24.08	34.71	41.57	45.34	43.31	55.94
17	-8.58	-2.26	0.21	4.14	16.19	19.58	28.96	35.02	38.35	41.41	47.74
18	-9.38	-3.35	-1.37	1.50	6.73	14.73	22.87	28.03	30.89	33.51	38.94
19	-11.27	-6.99	-4.50	-1.05	2.02	10.22	17.62	22.29	25.01	27.43	32.41
20	-12.03	-8.14	-5.34	-3.54	0.31	7.55	14.20	18.64	21.03	23.23	27.78
21	-13.66	-9.12	-6.00	-4.51	-0.10	5.57	13.01	17.66	20.05	22.25	26.79
22	-12.04	-6.62	-5.54	-4.27	-0.10	6.74	12.04	16.70	19.03	21.11	25.42
23	-13.44	-8.81	-6.80	-4.20	0.10	7.61	13.82	18.22	20.64	22.86	27.46
24	-14.13	-9.01	-6.50	-3.08	1.03	6.53	16.23	21.19	23.80	26.38	31.50
25	-14.97	-9.23	-6.50	-3.52	1.82	10.36	18.60	24.25	27.25	30.00	35.69
26	-15.15	-9.74	-5.73	-2.45	2.60	11.73	20.36	26.31	30.18	33.20	39.41
27	-16.04	-10.16	-6.20	-3.41	3.00	12.82	22.84	28.24	32.76	36.00	42.68
28	-21.58	-13.81	-10.05	-5.95	1.49	13.03	24.57	32.01	36.10	39.87	47.64
29	-24.26	-15.59	-11.39	-6.83	1.47	14.34	27.21	35.50	40.07	44.27	52.94
30	-23.91	-14.77	-10.34	-5.53	3.22	16.79	30.35	39.10	43.92	48.35	57.48
31	-25.24	-15.29	-10.47	-5.23	4.29	19.06	33.83	43.35	48.60	53.41	63.36
32	-25.83	-15.37	-10.30	-4.78	5.23	20.77	36.30	46.31	51.83	56.90	67.36
33	-22.16	-19.84	-14.03	-7.58	4.11	22.25	40.39	52.09	58.53	64.45	76.67
34	-33.94	-21.02	-14.76	-7.95	4.42	23.60	42.79	55.16	61.97	68.23	81.15
35	-37.34	-23.61	-16.95	-9.72	3.43	23.81	44.20	57.34	64.58	71.23	84.97
36	-39.14	-24.90	-18.01	-10.50	3.13	24.26	45.39	59.02	66.52	73.42	87.65
37	-42.67	-27.52	-20.18	-12.20	2.31	24.80	47.29	61.79	69.78	77.11	92.26
38	-46.65	-30.53	-22.73	-14.23	1.19	25.11	49.03	64.46	72.95	80.76	96.89
39	-47.65	-31.07	-23.04	-14.30	1.56	26.17	50.78	66.64	75.38	83.41	99.99
40	-50.34	-32.96	-24.55	-15.39	1.25	27.04	52.84	69.47	78.63	87.05	104.42
41	-51.64	-33.84	-25.21	-15.83	1.22	27.65	54.08	71.13	80.51	89.14	106.94
42	-53.32	-35.17	-26.37	-16.80	0.58	27.52	54.47	71.85	81.42	90.21	108.37
43	-53.95	-35.69	-26.84	-17.22	0.26	27.37	54.48	71.96	81.58	90.43	108.69
44	-53.32	-35.21	-26.44	-16.90	0.44	27.31	54.13	71.52	81.07	89.84	107.94
45	-55.05	-36.52	-27.54	-17.77	-0.03	27.48	54.99	72.73	82.49	91.47	110.00
46	-55.64	-36.83	-27.71	-17.80	0.21	28.13	56.05	74.06	83.98	93.09	111.90
47	-56.54	-37.28	-27.96	-17.81	0.62	29.20	57.77	76.20	86.35	95.68	114.93
48	-56.90	-37.34	-27.86	-17.55	1.18	30.22	59.26	77.99	88.30	97.78	117.34
49	-57.63	-37.89	-28.33	-17.93	0.97	30.26	59.56	78.46	88.86	98.42	118.16
50	-57.57	-37.91	-28.39	-18.03	0.79	29.96	59.14	77.96	88.32	97.84	117.50
51	-59.76	-39.43	-29.58	-18.87	0.59	30.77	60.95	80.41	91.13	100.97	121.30
52	-61.82	-41.27	-31.32	-20.49	-0.32	29.68	60.18	79.85	90.68	100.64	121.18
53	-64.46	-43.37	-33.16	-22.05	-1.87	29.43	60.72	80.91	92.02	102.23	123.31
54	-64.43	-43.27	-33.02	-21.87	-1.61	29.80	61.21	81.47	92.62	102.87	124.04
55	-65.86	-44.28	-33.83	-22.45	-1.79	30.25	62.28	82.55	94.32	104.77	126.36
56	-68.09	-45.35	-34.34	-22.35	-0.58	33.17	66.92	88.68	100.67	111.68	134.42
57	-66.02	-43.70	-32.88	-21.11	0.26	33.40	66.55	87.92	99.69	110.51	132.83
58	-63.25	-42.41	-32.31	-21.33	-1.38	29.56	60.49	80.44	91.43	101.52	122.37
59	-66.74	-45.11	-34.63	-23.23	-2.52	29.59	61.69	82.40	93.80	104.28	125.91
60	-82.59	-56.91	-44.48	-30.94	-6.36	31.75	69.86	94.44	107.98	120.41	146.09
61	-63.74	-42.65	-32.44	-21.32	-1.14	30.16	61.46	81.65	92.76	102.98	124.06
62	-59.72	-39.89	-30.29	-19.84	-0.86	28.57	58.00	76.98	87.43	97.04	116.87
63	-55.96	-37.33	-28.31	-18.49	-0.66	26.99	54.64	72.47	82.28	91.30	109.93
64	-51.36	-34.59	-26.17	-17.02	-0.39	25.40	51.18	67.81	76.97	85.38	102.75
65	-47.99	-31.87	-24.06	-15.56	-0.12	23.81	47.75	63.19	71.69	79.50	95.62
66	-44.03	-29.15	-21.95	-14.11	0.13	22.21	44.30	58.54	66.38	73.58	89.46
67	-40.07	-26.44	-19.83	-12.65	0.40	20.63	40.86	53.91	61.09	67.69	81.32
68	-36.38	-23.93	-17.91	-11.35	0.57	19.04	37.52	49.43	55.99	62.02	74.47
69	-32.48	-21.27	-15.84	-9.93	0.81	17.45	34.09	44.83	50.74	56.17	67.38
70	-28.61	-18.62	-13.79	-8.52	1.04	15.87	30.69	40.25	45.52	50.36	60.34

TABLE 7.1. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

JANUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.97	-9.54	-8.36	-7.08	-4.7E	-1.15	2.46	4.7P	6.05	7.24	9.67
1	-20.44	-16.01	-13.87	-11.54	-7.30	-2.73	5.84	10.04	12.41	14.56	18.93
2	-22.10	-17.73	-15.61	-13.30	-9.11	-2.62	3.87	8.06	10.37	12.49	16.86
3	-25.69	-20.38	-18.56	-16.02	-11.43	-4.30	2.84	7.43	9.97	12.23	17.10
4	-28.53	-23.41	-20.93	-18.22	-13.32	-5.71	1.80	6.81	9.51	11.99	17.12
5	-31.77	-26.25	-23.54	-20.57	-15.39	-7.20	.99	6.27	9.19	11.35	17.37
6	-35.15	-29.17	-26.27	-23.12	-17.40	-8.53	.34	6.06	9.21	12.11	18.08
7	-38.52	-32.07	-28.95	-25.56	-19.39	-9.83	-.27	5.90	9.30	12.42	18.96
8	-42.61	-35.58	-32.18	-28.47	-21.74	-11.30	-.87	5.86	9.57	12.97	20.00
9	-46.89	-39.22	-35.51	-31.47	-24.13	-12.74	-1.36	5.99	10.02	13.74	21.41
10	-49.45	-41.53	-37.69	-33.52	-25.93	-14.18	-2.42	5.16	9.32	13.17	21.09
11	-54.06	-45.51	-41.36	-36.86	-29.67	-15.98	-3.29	4.90	9.40	13.55	22.10
12	-54.57	-46.16	-42.08	-37.65	-32.60	-17.12	-4.63	3.42	7.85	11.92	20.33
13	-50.76	-43.25	-39.62	-35.66	-29.49	-17.34	-5.20	.98	4.94	1.37	16.08
14	-45.74	-39.26	-36.12	-32.71	-26.50	-16.88	-7.27	-1.06	2.25	5.49	11.97
15	-41.11	-35.22	-32.39	-29.25	-23.61	-14.86	-6.11	-.46	2.64	5.50	11.40
16	-35.51	-30.36	-27.87	-25.15	-20.22	-12.58	-4.93	-.00	2.71	5.21	10.36
17	-30.65	-26.10	-23.90	-21.51	-17.16	-10.41	-3.66	.69	3.09	5.24	9.93
18	-24.14	-20.86	-18.68	-16.73	-13.21	-7.74	-2.27	1.26	3.20	4.98	8.67
19	-19.52	-16.36	-14.82	-13.15	-10.13	-5.43	-.77	2.30	3.97	5.50	8.67
20	-15.92	-13.19	-11.87	-10.43	-7.62	-3.78	.27	2.88	4.31	5.63	8.36
21	-15.32	-12.52	-11.16	-9.68	-6.99	-2.82	1.35	4.03	5.51	6.37	9.68
22	-15.19	-12.24	-10.81	-9.25	-6.42	-2.04	2.34	5.16	6.72	8.15	11.10
23	-15.35	-12.22	-10.70	-9.05	-6.06	-1.41	3.24	6.24	7.39	9.40	12.53
24	-16.07	-12.76	-11.14	-9.40	-6.23	-1.31	3.61	6.78	8.53	10.13	13.45
25	-17.78	-14.18	-12.43	-10.52	-7.06	-1.69	3.67	7.13	9.04	10.79	14.41
26	-20.87	-16.87	-14.64	-12.43	-8.42	-2.20	4.03	8.04	10.25	12.28	16.97
27	-23.68	-19.73	-16.42	-13.84	-9.16	-1.90	5.36	10.05	12.62	14.99	19.88
28	-28.07	-24.88	-21.02	-18.02	-13.02	-4.05	7.38	12.36	15.10	17.61	22.81
29	-27.88	-21.85	-18.63	-15.46	-9.69	-.74	8.21	13.98	17.16	20.08	26.11
30	-31.87	-25.99	-21.17	-17.85	-11.26	-1.36	8.54	14.93	18.45	21.68	28.35
31	-34.50	-27.10	-23.02	-19.62	-12.53	-1.55	9.44	16.52	20.42	24.01	31.41
32	-38.30	-30.39	-26.39	-22.14	-14.41	-2.43	9.55	17.28	21.53	25.44	33.52
33	-42.72	-33.95	-29.70	-25.07	-16.67	-3.65	9.37	17.77	22.40	26.65	35.42
34	-47.60	-37.83	-33.15	-28.05	-18.80	-4.45	9.91	19.16	24.26	28.94	38.61
35	-50.80	-40.45	-35.40	-29.91	-19.92	-4.45	11.03	21.01	25.51	31.86	41.99
36	-52.38	-42.78	-36.82	-30.88	-20.65	-4.78	11.09	21.32	26.96	32.14	42.83
37	-51.56	-41.15	-36.11	-30.62	-20.65	-5.20	10.26	20.23	25.72	30.76	41.17
38	-51.45	-40.85	-35.85	-30.33	-20.28	-4.69	10.90	20.95	26.48	31.57	42.07
39	-51.61	-41.01	-35.67	-30.24	-20.13	-4.39	11.35	21.51	27.10	32.23	42.84
40	-51.13	-40.79	-35.78	-30.33	-20.43	-5.09	10.26	20.15	25.60	30.61	40.95
41	-51.03	-40.95	-35.98	-29.96	-19.93	-4.38	11.17	21.19	26.71	31.79	42.26
42	-50.31	-39.80	-34.85	-29.37	-19.40	-3.94	11.52	21.49	26.98	32.02	42.43
43	-49.47	-39.02	-33.96	-28.45	-18.44	-2.92	12.59	22.60	28.11	33.17	43.62
44	-48.96	-36.17	-31.43	-26.26	-16.89	-2.36	12.17	21.55	26.71	31.45	41.24
45	-44.99	-35.41	-30.77	-25.73	-16.56	-2.34	11.88	21.05	26.10	30.73	40.31
46	-46.14	-36.20	-31.38	-26.14	-16.62	-1.86	12.90	22.42	27.66	32.48	42.42
47	-48.42	-37.80	-32.65	-27.05	-16.88	-1.11	14.66	24.83	30.43	35.58	46.20
48	-46.38	-36.11	-31.14	-25.73	-15.90	-.67	14.57	24.40	29.81	34.78	45.05
49	-45.04	-35.38	-30.69	-25.60	-16.35	-2.00	12.35	21.60	26.70	31.38	41.05
50	-44.29	-35.04	-30.56	-25.68	-16.83	-3.10	10.63	19.48	24.36	28.84	38.09
51	-44.77	-35.66	-31.25	-26.45	-17.73	-4.21	9.31	18.03	22.83	27.24	36.34
52	-48.33	-38.92	-34.36	-29.40	-20.38	-6.41	7.56	16.57	21.53	26.09	35.51
53	-51.26	-41.59	-36.90	-31.79	-22.52	-8.14	6.24	15.51	20.62	25.31	35.00
54	-53.31	-43.35	-38.52	-33.27	-23.73	-8.94	5.85	15.39	20.64	25.47	35.44
55	-55.33	-45.22	-40.33	-35.00	-25.33	-10.33	4.68	14.35	19.68	24.57	34.68
56	-54.34	-44.69	-40.02	-34.93	-25.69	-11.37	2.96	12.20	17.28	21.96	31.61
57	-60.23	-49.65	-44.52	-38.95	-28.82	-13.11	2.60	12.73	18.31	23.44	34.02
58	-67.63	-55.67	-49.88	-43.58	-32.13	-14.38	3.37	14.82	21.12	26.91	38.87
59	-71.46	-59.17	-53.21	-46.73	-34.96	-16.71	1.54	13.31	19.79	25.75	38.05
60	-74.95	-65.41	-58.85	-51.72	-38.76	-18.67	1.42	14.38	21.52	28.07	41.61
61	-77.24	-63.91	-57.96	-50.43	-37.68	-17.90	1.88	14.64	21.66	28.11	41.44
62	-73.58	-60.84	-54.71	-48.04	-35.92	-17.13	1.66	13.78	20.45	26.58	39.24
63	-69.97	-57.93	-52.10	-45.75	-34.23	-16.36	1.51	13.03	19.38	25.21	37.24
64	-66.48	-55.05	-49.52	-43.49	-32.55	-15.59	1.37	12.31	18.33	23.86	35.29
65	-63.31	-52.42	-47.15	-41.41	-30.98	-14.82	1.34	11.76	17.50	22.78	33.66
66	-60.15	-49.80	-44.79	-39.33	-29.42	-14.05	1.31	11.22	16.68	21.69	32.05
67	-57.35	-47.45	-42.66	-37.45	-27.97	-13.28	1.40	10.88	16.09	20.89	30.78
68	-54.81	-45.07	-40.51	-35.54	-26.51	-12.51	1.49	10.51	15.49	20.05	29.48
69	-52.18	-43.10	-38.70	-33.92	-25.23	-11.75	1.73	10.42	15.21	19.61	28.69
70	-50.85	-41.28	-37.03	-32.40	-24.00	-10.98	2.05	10.44	15.07	19.32	28.09

TABLE 7.2. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

FEBRUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-12.50	-9.76	-3.44	-0.33	-4.37	-7.30	3.76	6.39	7.33	9.16	11.90
1	-20.44	-15.80	-13.56	-11.11	-6.67	-2.21	7.09	11.53	17.98	16.23	20.86
2	-23.31	-19.57	-16.23	-13.78	-9.24	-2.21	4.82	9.36	11.36	14.15	18.89
3	-26.54	-21.44	-18.20	-16.20	-11.40	-3.03	3.75	8.73	11.32	13.79	18.89
4	-29.80	-24.21	-21.50	-19.56	-13.20	-4.91	3.39	8.75	11.69	14.40	19.99
5	-33.24	-27.18	-24.21	-21.05	-15.25	-6.75	2.78	8.54	11.74	14.67	20.73
6	-34.97	-28.84	-25.86	-22.63	-16.75	-7.64	1.48	7.35	10.53	13.56	19.70
7	-37.98	-31.49	-28.35	-24.95	-18.72	-9.09	1.58	6.75	10.17	13.31	19.80
8	-41.86	-34.33	-31.43	-27.91	-21.12	-10.75	-3.37	6.32	10.00	13.38	20.37
9	-45.13	-38.19	-34.50	-30.66	-23.54	-12.49	-1.45	5.68	9.00	13.20	20.64
10	-50.05	-42.03	-38.14	-33.14	-26.23	-14.32	-2.41	5.27	9.50	11.38	21.41
11	-53.96	-46.47	-41.35	-36.89	-28.77	-16.17	-3.57	4.65	9.02	13.14	21.62
12	-54.39	-46.47	-41.35	-36.89	-28.77	-16.17	-3.57	4.65	9.02	13.14	21.62
13	-49.38	-42.24	-38.79	-35.01	-28.17	-17.41	-4.91	3.15	7.58	11.66	20.58
14	-45.07	-38.64	-35.53	-32.17	-27.04	-18.43	-6.03	-4.42	2.67	5.51	11.37
15	-40.83	-34.97	-32.17	-28.55	-25.49	-19.62	-4.76	3.10	5.67	10.96	11.37
16	-36.20	-30.91	-28.34	-25.55	-23.43	-19.48	-3.64	2.77	3.20	5.43	10.04
17	-31.01	-26.40	-24.17	-21.74	-21.05	-17.30	-2.44	1.07	3.03	4.83	8.54
18	-24.52	-20.31	-17.01	-17.01	-17.01	-15.25	-4.49	2.69	4.28	5.83	9.04
19	-19.53	-16.33	-14.77	-13.97	-13.97	-12.91	1.38	4.15	5.08	7.08	9.97
20	-15.78	-12.93	-11.43	-10.64	-10.64	-9.00	2.65	5.64	7.29	8.81	11.94
21	-11.94	-12.11	-10.37	-9.25	-9.25	-7.62	7.02	6.01	7.65	9.17	12.29
22	-15.53	-12.41	-10.37	-9.25	-9.25	-7.62	7.02	6.01	7.65	9.17	12.29
23	-14.49	-11.46	-10.00	-8.77	-8.77	-7.45	7.60	6.52	8.13	9.60	12.65
24	-14.51	-11.46	-10.00	-8.77	-8.77	-7.45	7.60	6.52	8.13	9.60	12.65
25	-14.60	-11.60	-10.15	-8.95	-8.95	-7.60	7.60	6.52	8.13	9.60	12.65
26	-16.39	-13.04	-11.42	-10.15	-10.15	-8.95	7.60	6.52	8.13	9.60	12.65
27	-17.85	-14.20	-12.44	-10.52	-10.52	-9.25	7.60	6.52	8.13	9.60	12.65
28	-17.51	-14.10	-12.45	-10.65	-10.65	-9.25	7.60	6.52	8.13	9.60	12.65
29	-19.49	-16.76	-13.95	-11.99	-11.99	-10.42	2.65	6.22	8.18	9.99	13.71
30	-20.77	-16.87	-14.98	-12.92	-12.92	-10.42	2.39	6.13	8.18	10.07	13.97
31	-21.05	-17.27	-15.44	-13.45	-13.45	-9.83	4.23	5.00	6.99	8.82	12.60
32	-23.55	-19.30	-17.25	-15.01	-15.01	-10.94	1.67	5.74	7.98	10.03	14.28
33	-27.76	-23.14	-20.91	-18.47	-18.47	-14.05	-7.20	4.07	6.51	8.74	13.36
34	-31.93	-26.89	-24.44	-21.78	-21.78	-16.95	-9.46	2.87	5.53	7.97	13.02
35	-34.15	-28.76	-26.15	-23.30	-23.30	-18.14	-10.13	3.04	5.89	8.50	13.90
36	-34.69	-29.30	-26.68	-23.84	-23.84	-18.67	-10.66	2.52	5.37	7.98	13.38
37	-37.08	-31.28	-28.46	-25.40	-25.40	-19.85	-11.23	2.61	6.01	8.82	14.62
38	-39.69	-33.49	-30.49	-27.22	-27.22	-21.25	-12.09	2.89	6.32	9.32	15.52
39	-43.39	-36.50	-33.16	-29.52	-29.52	-22.92	-12.69	2.45	4.15	7.78	11.12
40	-45.13	-37.87	-34.36	-30.53	-30.53	-23.59	-12.82	2.04	4.90	8.73	12.24
41	-47.63	-39.70	-35.87	-31.69	-31.69	-24.11	-12.35	1.59	7.00	11.17	15.01
42	-46.17	-38.46	-34.72	-30.66	-30.66	-23.28	-11.83	1.39	7.00	11.06	14.80
43	-44.31	-36.99	-33.45	-29.60	-29.60	-22.59	-11.74	1.10	6.12	9.97	13.52
44	-45.55	-37.91	-34.21	-30.19	-30.19	-22.88	-11.54	1.21	7.10	11.13	14.83
45	-45.76	-37.85	-34.02	-29.85	-29.85	-22.28	-10.54	1.21	8.78	12.95	16.78
46	-47.28	-38.97	-34.95	-30.57	-30.57	-22.62	-10.28	2.05	10.00	14.38	18.40
47	-46.60	-38.53	-34.62	-30.36	-30.36	-22.63	-10.65	1.33	10.00	13.32	17.23
48	-46.45	-38.65	-34.87	-30.76	-30.76	-23.29	-11.72	1.14	7.32	11.43	15.21
49	-46.73	-39.20	-35.55	-31.58	-31.58	-24.37	-13.18	2.00	5.21	9.18	12.83
50	-47.81	-40.16	-36.45	-32.41	-32.41	-25.08	-13.71	2.34	4.99	9.02	12.73
51	-49.88	-41.87	-37.99	-33.77	-33.77	-26.11	-14.22	2.33	5.33	9.55	13.43
52	-55.16	-46.24	-41.92	-37.22	-37.22	-28.68	-15.44	2.21	6.33	11.03	15.35
53	-56.92	-48.00	-43.69	-38.99	-38.99	-30.45	-17.22	3.99	4.55	9.25	13.56
54	-60.51	-51.03	-46.44	-41.44	-41.44	-32.37	-18.30	4.23	4.84	9.84	14.43
55	-61.80	-52.03	-47.30	-42.15	-42.15	-32.80	-18.31	3.81	5.54	10.69	15.42
56	-63.27	-53.43	-48.66	-43.47	-43.47	-34.04	-19.42	4.61	6.62	9.81	14.58
57	-64.03	-54.32	-49.62	-44.50	-44.50	-35.20	-20.78	6.37	2.93	8.05	12.76
58	-62.27	-52.95	-48.44	-43.53	-43.53	-34.61	-20.77	6.94	1.98	6.90	11.41
59	-69.84	-58.78	-53.42	-47.59	-47.59	-37.00	-20.59	4.17	6.42	12.25	17.61
60	-82.74	-68.71	-61.91	-54.51	-54.51	-41.08	-20.25	1.59	14.02	21.42	28.22
61	-73.16	-61.12	-55.28	-48.93	-48.93	-37.40	-19.52	1.64	9.89	16.24	22.07
62	-71.26	-59.48	-53.78	-47.57	-47.57	-36.29	-18.81	1.32	9.96	16.17	21.87
63	-69.65	-58.07	-52.46	-46.36	-46.36	-35.27	-18.08	1.90	10.19	16.29	21.90
64	-67.74	-56.43	-50.95	-44.98	-44.98	-34.15	-17.36	1.56	10.27	16.23	21.71
65	-66.03	-54.94	-49.57	-43.72	-43.72	-33.10	-16.64	1.21	10.45	16.30	21.67
66	-64.34	-53.46	-48.20	-42.47	-42.47	-32.06	-15.92	1.57	10.62	16.35	21.62
67	-62.43	-51.82	-46.69	-41.10	-41.10	-30.94	-15.20	1.55	10.70	16.29	21.43
68	-60.83	-50.42	-45.38	-39.89	-39.89	-29.93	-14.48	1.97	10.94	16.42	21.47
69	-58.93	-48.79	-43.87	-38.53	-38.53	-28.81	-13.76	1.30	11.01	16.36	21.27
70	-57.23	-47.30	-42.50	-37.27	-37.27	-27.77	-13.04	1.69	11.19	16.43	21.23

TABLE 7.3. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

MARCH

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.72	-9.11	-7.84	-6.46	-5.36	-4.07	3.81	6.31	7.59	9.96	11.59
1	-18.96	-14.73	-12.69	-10.46	-8.41	-7.14	6.14	10.18	12.41	14.46	18.69
2	-20.67	-16.57	-14.53	-12.43	-9.50	-8.42	3.66	7.59	9.77	11.73	15.37
3	-24.02	-19.57	-17.41	-15.07	-10.81	-8.20	2.40	6.66	9.00	11.16	15.61
4	-28.32	-23.35	-20.75	-18.73	-13.57	-6.20	1.18	5.43	8.55	10.76	15.97
5	-31.32	-26.12	-23.60	-20.36	-15.88	-8.15	-4.43	4.45	7.20	9.62	15.02
6	-34.46	-28.91	-26.22	-23.30	-17.39	-3.76	-1.53	3.78	6.71	9.39	14.94
7	-38.28	-32.25	-29.33	-26.15	-20.38	-11.47	-2.48	3.29	6.47	9.29	15.42
8	-41.81	-35.37	-32.25	-28.85	-22.68	-17.11	-3.55	2.62	6.02	9.14	15.54
9	-49.18	-41.54	-37.83	-33.81	-26.49	-15.14	-3.79	3.73	7.55	11.26	18.90
10	-56.21	-47.44	-43.19	-38.56	-30.15	-17.13	-4.10	4.30	8.93	13.18	21.95
11	-62.78	-52.99	-48.25	-43.09	-37.73	-15.70	-4.68	4.69	9.85	14.59	24.37
12	-61.91	-52.63	-48.14	-43.75	-34.37	-20.59	-6.82	2.06	6.95	11.45	20.73
13	-56.79	-48.66	-44.72	-40.43	-32.65	-20.57	-8.50	-7.72	3.57	7.51	15.64
14	-49.88	-42.99	-39.65	-35.01	-29.41	-19.17	-8.93	-2.33	1.30	4.64	11.54
15	-43.98	-37.83	-34.66	-31.62	-25.73	-16.61	-7.49	-1.61	1.63	4.61	10.75
16	-38.42	-32.96	-30.31	-27.43	-22.19	-14.08	-5.97	-7.3	2.15	4.80	10.26
17	-32.72	-27.86	-25.50	-22.94	-18.29	-11.07	-3.85	.81	3.37	5.77	10.59
18	-26.54	-22.41	-20.41	-18.24	-14.23	-8.15	-2.04	1.41	4.09	6.09	12.21
19	-20.41	-16.98	-15.37	-13.51	-10.22	-5.13	-0.03	3.25	5.06	6.72	10.16
20	-16.68	-13.60	-12.10	-10.48	-7.53	-2.95	1.63	4.58	6.20	7.69	10.78
21	-14.62	-11.71	-10.30	-8.76	-5.97	-1.65	2.69	5.47	7.00	9.42	11.23
22	-14.06	-11.08	-9.63	-8.06	-5.20	-1.77	3.67	6.52	8.10	9.54	12.53
23	-13.09	-10.19	-8.78	-7.25	-4.47	-1.16	4.15	6.93	8.46	9.87	12.77
24	-13.43	-10.44	-9.00	-7.42	-4.56	-1.12	4.31	7.18	8.75	10.20	13.14
25	-13.82	-10.82	-9.37	-7.78	-4.91	-1.45	4.00	6.87	8.40	9.91	12.61
26	-14.96	-11.42	-10.30	-8.64	-5.63	-0.97	3.63	6.70	8.35	9.37	13.01
27	-17.09	-13.52	-11.79	-9.91	-6.49	-1.19	4.11	7.53	9.41	11.14	14.71
28	-22.88	-18.99	-17.06	-14.28	-10.02	-4.33	7.11	8.63	10.04	12.44	18.94
29	-24.82	-21.86	-19.13	-16.47	-11.95	-7.76	3.93	6.95	8.61	10.14	13.30
30	-27.00	-24.23	-21.50	-18.82	-14.20	-11.90	3.40	6.82	8.70	10.43	14.00
31	-28.84	-26.07	-23.34	-20.66	-16.06	-13.17	2.71	6.51	8.60	10.52	14.49
32	-24.43	-21.73	-19.00	-16.28	-12.52	-11.07	4.54	6.20	8.52	10.65	15.05
33	-24.52	-21.83	-19.10	-16.20	-13.29	-11.29	5.67	6.85	9.55	12.04	17.17
34	-33.53	-27.16	-24.24	-21.07	-16.30	-6.35	2.60	8.37	11.55	14.47	20.50
35	-36.90	-30.14	-26.87	-23.31	-18.45	-6.43	3.20	9.66	13.22	16.49	23.25
36	-35.06	-28.64	-25.53	-22.15	-16.00	-6.48	3.05	9.19	12.57	15.68	22.10
37	-33.80	-27.70	-24.74	-21.52	-15.68	-6.62	2.44	8.28	11.49	14.45	20.55
38	-36.32	-29.89	-26.77	-23.38	-17.21	-7.66	1.90	8.06	11.45	14.57	21.01
39	-37.24	-30.73	-27.58	-24.15	-17.91	-8.25	1.42	7.65	11.08	14.23	20.75
40	-37.50	-30.86	-27.74	-24.35	-18.18	-8.63	.93	7.09	10.49	13.61	20.04
41	-40.22	-33.21	-29.82	-26.13	-19.42	-9.03	1.37	8.08	11.77	15.16	22.17
42	-39.14	-32.33	-29.04	-25.45	-18.94	-8.83	1.27	7.78	11.37	14.67	21.47
43	-36.69	-30.32	-27.24	-23.88	-17.79	-8.34	1.11	7.20	10.56	13.64	20.01
44	-35.72	-29.50	-26.49	-23.21	-17.26	-8.03	1.20	7.16	10.44	13.45	19.67
45	-35.39	-29.22	-26.24	-22.99	-17.09	-7.94	1.21	7.11	10.36	13.35	19.51
46	-35.30	-29.20	-26.28	-23.02	-17.18	-8.12	.93	6.77	9.99	12.95	19.05
47	-34.68	-28.61	-25.70	-22.55	-16.81	-7.92	.97	6.70	9.86	12.76	18.75
48	-34.57	-28.76	-25.98	-22.88	-17.32	-8.69	-1.07	5.49	8.56	11.37	17.18
49	-36.04	-30.05	-27.15	-24.00	-18.27	-9.39	-1.51	5.22	8.37	11.27	17.26
50	-36.61	-30.69	-27.85	-24.71	-19.05	-10.28	-1.58	4.15	7.27	10.14	16.05
51	-37.88	-31.96	-29.10	-25.99	-20.34	-11.58	-2.83	2.82	5.93	8.79	14.69
52	-38.35	-32.62	-29.84	-26.82	-21.34	-12.83	-4.33	1.16	4.18	6.95	12.68
53	-37.28	-32.11	-29.64	-26.96	-22.08	-14.53	-6.97	-2.09	.59	3.06	8.15
54	-39.04	-33.72	-31.18	-28.33	-23.24	-15.33	-7.43	-2.33	.48	3.06	8.38
55	-41.33	-35.63	-32.87	-29.86	-24.40	-15.93	-7.47	-2.00	1.00	3.76	9.47
56	-42.72	-36.66	-33.73	-30.53	-24.74	-15.75	-6.75	-1.96	2.24	5.17	11.23
57	-46.40	-39.41	-36.02	-32.34	-25.64	-15.27	-9.89	1.81	5.49	8.88	15.87
58	-51.52	-46.70	-42.43	-37.78	-29.34	-16.25	-3.16	5.29	9.93	14.21	23.03
59	-56.72	-47.16	-42.53	-37.49	-28.34	-14.15	.04	9.19	14.22	18.85	28.41
60	-58.41	-47.70	-42.51	-36.86	-26.60	-10.70	5.21	15.46	21.11	26.30	37.02
61	-59.84	-48.91	-36.86	-31.87	-23.32	-10.07	3.19	11.74	16.45	20.78	29.71
62	-48.63	-39.83	-35.55	-30.93	-22.50	-9.44	3.62	12.05	16.69	20.95	29.75
63	-47.61	-38.90	-34.67	-30.08	-21.74	-8.80	4.13	12.48	17.07	21.29	30.01
64	-46.41	-37.82	-33.66	-29.14	-20.92	-8.18	4.57	12.79	17.31	21.47	30.05
65	-45.13	-36.74	-32.64	-28.19	-20.09	-7.54	5.01	13.11	17.56	21.66	30.11
66	-43.98	-35.66	-31.62	-27.24	-19.26	-6.90	5.46	13.43	17.82	21.85	30.18
67	-42.79	-34.59	-30.62	-26.30	-18.45	-6.28	5.89	13.74	18.06	22.03	30.23
68	-41.79	-33.67	-29.74	-25.46	-17.69	-5.64	6.41	14.18	18.46	22.39	30.51
69	-40.59	-32.61	-28.74	-24.53	-16.88	-5.02	6.85	14.50	18.71	22.58	30.57
70	-39.41	-31.54	-27.73	-23.58	-16.06	-4.38	7.30	14.82	18.97	22.78	30.65

TABLE 7.4. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

APRIL

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-3.59	-7.22	-11.03	-14.34	-17.57	-20.93	-24.44	-28.07	-31.81	-35.65	-39.58
1	-17.11	-13.13	-11.21	-9.11	-7.21	-5.59	-4.24	-3.07	-2.04	-1.12	-0.30
2	-18.53	-14.72	-12.82	-10.87	-9.22	-7.57	-6.09	-4.74	-3.47	-2.24	-1.04
3	-23.06	-18.68	-16.58	-14.25	-12.00	-10.00	-8.24	-6.71	-5.34	-4.04	-2.79
4	-25.93	-21.32	-19.00	-16.59	-14.12	-11.99	-10.00	-8.24	-6.71	-5.34	-4.04
5	-28.19	-23.36	-21.00	-18.47	-15.84	-13.67	-11.67	-9.84	-8.14	-6.64	-5.24
6	-31.74	-26.46	-23.93	-21.16	-18.12	-15.81	-13.67	-11.67	-9.84	-8.14	-6.64
7	-35.45	-29.75	-26.97	-23.99	-20.54	-17.89	-15.67	-13.67	-11.67	-9.84	-8.14
8	-39.67	-33.42	-30.41	-27.14	-23.13	-19.97	-17.49	-15.67	-13.67	-11.67	-9.84
9	-44.67	-37.70	-34.32	-30.64	-26.00	-22.58	-19.81	-17.49	-15.67	-13.67	-11.67
10	-49.25	-41.63	-38.02	-34.04	-29.00	-25.58	-22.58	-19.81	-17.49	-15.67	-13.67
11	-54.74	-47.22	-43.10	-38.61	-33.45	-29.81	-26.57	-23.57	-20.71	-18.00	-15.44
12	-60.80	-53.34	-48.50	-44.74	-39.20	-35.40	-32.07	-29.07	-26.21	-23.57	-20.93
13	-67.79	-59.52	-54.52	-50.16	-44.42	-40.42	-36.99	-33.99	-31.24	-28.64	-26.00
14	-75.64	-66.93	-61.93	-57.37	-51.42	-47.22	-43.69	-40.42	-37.64	-35.00	-32.36
15	-84.26	-75.89	-70.89	-66.00	-59.97	-55.67	-51.99	-48.64	-45.81	-43.17	-40.53
16	-93.20	-84.00	-79.00	-74.00	-67.97	-63.67	-59.99	-56.64	-53.81	-51.17	-48.53
17	-102.48	-93.00	-88.00	-83.00	-76.97	-72.67	-68.99	-65.64	-62.81	-60.17	-57.53
18	-112.74	-103.00	-98.00	-93.00	-86.97	-82.67	-78.99	-75.64	-72.81	-70.17	-67.53
19	-124.24	-114.22	-109.22	-104.22	-98.19	-93.89	-89.99	-86.64	-83.81	-81.17	-78.53
20	-137.24	-127.22	-122.22	-117.22	-111.19	-106.89	-102.99	-99.64	-96.81	-94.17	-91.53
21	-151.29	-141.27	-136.27	-131.27	-125.24	-120.94	-117.04	-113.69	-110.86	-108.22	-105.58
22	-166.82	-156.80	-151.80	-146.80	-140.77	-136.47	-132.57	-129.22	-126.39	-123.75	-121.11
23	-183.20	-173.18	-168.18	-163.18	-157.15	-152.85	-148.95	-145.60	-142.77	-140.13	-137.49
24	-200.48	-190.46	-185.46	-180.46	-174.43	-170.13	-166.23	-162.88	-160.05	-157.41	-154.77
25	-218.74	-208.72	-203.72	-198.72	-192.69	-188.39	-184.49	-181.14	-178.31	-175.67	-173.03
26	-237.99	-227.97	-222.97	-217.97	-211.94	-207.64	-203.74	-200.39	-197.56	-194.92	-192.28
27	-258.24	-248.22	-243.22	-238.22	-232.19	-227.89	-223.99	-220.64	-217.81	-215.17	-212.53
28	-279.48	-269.46	-264.46	-259.46	-253.43	-249.13	-245.23	-241.88	-239.05	-236.41	-233.77
29	-301.74	-291.72	-286.72	-281.72	-275.69	-271.39	-267.49	-264.14	-261.31	-258.67	-256.03
30	-325.24	-315.22	-310.22	-305.22	-299.19	-294.89	-290.99	-287.64	-284.81	-282.17	-279.53
31	-350.48	-340.46	-335.46	-330.46	-324.43	-320.13	-316.23	-312.88	-310.05	-307.41	-304.77
32	-377.24	-367.22	-362.22	-357.22	-351.19	-346.89	-342.99	-339.64	-336.81	-334.17	-331.53
33	-405.48	-395.46	-390.46	-385.46	-379.43	-375.13	-371.23	-367.88	-365.05	-362.41	-359.77
34	-435.24	-425.22	-420.22	-415.22	-409.19	-404.89	-400.99	-397.64	-394.81	-392.17	-389.53
35	-466.48	-456.46	-451.46	-446.46	-440.43	-436.13	-432.23	-428.88	-426.05	-423.41	-420.77
36	-499.24	-489.22	-484.22	-479.22	-473.19	-468.89	-464.99	-461.64	-458.81	-456.17	-453.53
37	-533.48	-523.46	-518.46	-513.46	-507.43	-503.13	-499.23	-495.88	-493.05	-490.41	-487.77
38	-569.24	-559.22	-554.22	-549.22	-543.19	-538.89	-534.99	-531.64	-528.81	-526.17	-523.53
39	-606.48	-596.46	-591.46	-586.46	-580.43	-576.13	-572.23	-568.88	-566.05	-563.41	-560.77
40	-645.24	-635.22	-630.22	-625.22	-619.19	-614.89	-610.99	-607.64	-604.81	-602.17	-599.53
41	-686.48	-676.46	-671.46	-666.46	-660.43	-656.13	-652.23	-648.88	-646.05	-643.41	-640.77
42	-729.24	-719.22	-714.22	-709.22	-703.19	-698.89	-694.99	-691.64	-688.81	-686.17	-683.53
43	-773.48	-763.46	-758.46	-753.46	-747.43	-743.13	-739.23	-735.88	-733.05	-730.41	-727.77
44	-819.24	-809.22	-804.22	-799.22	-793.19	-788.89	-784.99	-781.64	-778.81	-776.17	-773.53
45	-866.48	-856.46	-851.46	-846.46	-840.43	-836.13	-832.23	-828.88	-826.05	-823.41	-820.77
46	-915.24	-905.22	-900.22	-895.22	-889.19	-884.89	-880.99	-877.64	-874.81	-872.17	-869.53
47	-965.48	-955.46	-950.46	-945.46	-939.43	-935.13	-931.23	-927.88	-925.05	-922.41	-919.77
48	-1017.24	-1007.22	-1002.22	-997.22	-991.19	-986.89	-982.99	-979.64	-976.81	-974.17	-971.53
49	-1070.48	-1060.46	-1055.46	-1050.46	-1044.43	-1040.13	-1036.23	-1032.88	-1030.05	-1027.41	-1024.77
50	-1125.24	-1115.22	-1110.22	-1105.22	-1099.19	-1094.89	-1090.99	-1087.64	-1084.81	-1082.17	-1079.53
51	-1181.48	-1171.46	-1166.46	-1161.46	-1155.43	-1151.13	-1147.23	-1143.88	-1141.05	-1138.41	-1135.77
52	-1239.24	-1229.22	-1224.22	-1219.22	-1213.19	-1208.89	-1204.99	-1201.64	-1198.81	-1196.17	-1193.53
53	-1298.48	-1288.46	-1283.46	-1278.46	-1272.43	-1268.13	-1264.23	-1260.88	-1258.05	-1255.41	-1252.77
54	-1359.24	-1349.22	-1344.22	-1339.22	-1333.19	-1328.89	-1324.99	-1321.64	-1318.81	-1316.17	-1313.53
55	-1421.48	-1411.46	-1406.46	-1401.46	-1395.43	-1391.13	-1387.23	-1383.88	-1381.05	-1378.41	-1375.77
56	-1485.24	-1475.22	-1470.22	-1465.22	-1459.19	-1454.89	-1450.99	-1447.64	-1444.81	-1442.17	-1439.53
57	-1550.48	-1540.46	-1535.46	-1530.46	-1524.43	-1520.13	-1516.23	-1512.88	-1510.05	-1507.41	-1504.77
58	-1617.24	-1607.22	-1602.22	-1597.22	-1591.19	-1586.89	-1582.99	-1579.64	-1576.81	-1574.17	-1571.53
59	-1685.48	-1675.46	-1670.46	-1665.46	-1659.43	-1655.13	-1651.23	-1647.88	-1645.05	-1642.41	-1639.77
60	-1755.24	-1745.22	-1740.22	-1735.22	-1729.19	-1724.89	-1720.99	-1717.64	-1714.81	-1712.17	-1709.53
61	-1826.48	-1816.46	-1811.46	-1806.46	-1800.43	-1796.13	-1792.23	-1788.88	-1786.05	-1783.41	-1780.77
62	-1899.24	-1889.22	-1884.22	-1879.22	-1873.19	-1868.89	-1864.99	-1861.64	-1858.81	-1856.17	-1853.53
63	-1973.48	-1963.46	-1958.46	-1953.46	-1947.43	-1943.13	-1939.23	-1935.88	-1933.05	-1930.41	-1927.77
64	-2049.24	-2039.22	-2034.22	-2029.22	-2023.19	-2018.89	-2014.99	-2011.64	-2008.81	-2006.17	-2003.53
65	-2126.48	-2116.46	-2111.46	-2106.46	-2100.43	-2096.13	-2092.23	-2088.88	-2086.05	-2083.41	-2080.77
66	-2205.24	-2195.22	-2190.22	-2185.22	-2179.19	-2174.89	-2170.99	-2167.64	-2164.81	-2162.17	-2159.53
67	-2285.48	-2275.46	-2270.46	-2265.46	-2259.43	-2255.13	-2251.23	-2247.88	-2245.05	-2242.41	-2239.77
68	-2367.24	-2357.22	-2352.22	-2347.22	-2341.19	-2336.89	-2332.99	-2329.64	-2326.81	-2324.17	-2321.53
69	-2450.48	-2440.46	-2435.46	-2430.46	-2424.43	-2420.13	-2416.23	-2412.88	-2410.05	-2407.41	-2404.77
70	-2535.24	-2525.22	-2520.22	-2515.22	-2509.19	-2504.89	-2500.99	-2497.64	-2494.81	-2492.17	-2489.53

TABLE 7.5. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

MAY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-6.90	-5.05	-4.15	-3.16	-1.41	1.34	4.08	5.85	6.23	7.72	9.57
1	-11.50	-8.66	-7.23	-5.73	-3.08	1.13	5.35	9.06	9.56	10.93	13.77
2	-12.88	-10.11	-8.77	-7.31	-4.55	-1.54	3.57	6.23	7.69	9.03	11.80
3	-14.49	-11.51	-10.08	-8.43	-5.63	-1.20	3.23	6.03	7.65	9.10	12.08
4	-16.78	-13.42	-11.79	-10.02	-6.81	-1.83	3.15	6.36	8.12	9.76	13.12
5	-18.87	-15.23	-13.47	-11.55	-8.07	-2.63	2.72	6.20	8.12	9.89	13.52
6	-21.92	-17.80	-15.80	-13.62	-9.67	-3.55	2.58	6.53	8.71	10.71	14.63
7	-24.81	-20.22	-17.99	-15.57	-11.17	-4.35	2.49	6.88	9.30	11.53	16.12
8	-27.33	-22.77	-20.27	-17.55	-12.61	-4.95	2.71	7.65	10.37	12.87	18.03
9	-32.52	-26.54	-23.65	-20.50	-14.79	-5.91	2.96	8.68	11.83	14.73	20.70
10	-37.03	-30.27	-27.00	-23.44	-16.98	-6.95	3.07	9.54	13.10	16.37	23.12
11	-41.84	-34.32	-30.69	-26.72	-19.52	-8.36	2.80	9.99	13.36	17.60	25.12
12	-46.04	-37.92	-33.95	-29.71	-21.93	-9.98	2.17	9.94	14.22	18.15	26.27
13	-47.34	-39.39	-35.54	-31.35	-23.73	-11.93	-1.13	7.48	11.67	15.52	23.48
14	-48.19	-35.44	-32.17	-28.61	-22.14	-12.12	-2.09	4.37	7.93	11.20	17.96
15	-34.44	-29.18	-26.63	-23.30	-18.82	-11.01	-3.20	1.84	4.61	7.16	12.42
16	-28.06	-23.77	-21.69	-19.42	-15.32	-8.95	-2.58	1.53	3.79	5.87	10.16
17	-21.99	-18.49	-16.79	-14.94	-11.59	-6.39	-1.20	2.16	4.00	5.70	9.20
18	-16.83	-13.89	-12.46	-10.91	-8.10	-3.74	.63	3.44	4.99	6.42	9.36
19	-12.24	-9.81	-8.61	-7.30	-4.93	-1.26	2.42	4.79	6.10	7.29	9.77
20	-9.25	-7.12	-6.09	-4.98	-2.94	.21	3.38	5.79	6.51	7.54	9.60
21	-7.73	-5.64	-4.63	-3.53	-1.53	1.56	4.66	6.66	7.75	9.77	10.95
22	-7.75	-5.52	-4.43	-3.25	-1.10	2.22	5.55	7.69	8.87	9.96	12.20
23	-6.97	-4.78	-3.71	-2.50	-.46	2.30	6.06	8.17	9.32	10.39	12.59
24	-6.96	-4.71	-3.61	-2.42	-.27	3.08	6.43	8.59	9.77	10.87	13.10
25	-7.79	-5.36	-4.19	-2.91	-.53	3.03	6.63	8.76	10.24	11.42	13.85
26	-8.19	-5.66	-4.43	-3.10	-.68	3.07	6.83	9.27	10.57	11.81	14.33
27	-9.23	-6.51	-5.20	-3.76	-1.16	2.84	6.92	9.52	10.95	12.28	15.00
28	-9.83	-6.32	-5.01	-3.18	-.40	3.93	8.23	11.01	12.54	13.97	16.85
29	-10.90	-7.59	-6.09	-4.25	-1.09	3.82	8.72	11.88	13.63	15.23	18.53
30	-11.48	-8.02	-6.37	-4.58	-1.32	3.73	8.78	12.03	13.83	15.48	18.88
31	-13.19	-9.56	-7.81	-5.90	-2.43	2.94	8.32	11.79	13.70	15.45	19.07
32	-13.42	-9.76	-7.98	-6.05	-2.54	2.89	8.33	11.84	13.77	15.54	19.21
33	-14.31	-10.57	-8.77	-6.80	-3.23	2.31	7.85	11.43	13.39	15.20	18.93
34	-14.89	-11.12	-9.29	-7.31	-3.70	1.90	7.49	11.10	13.08	14.91	18.68
35	-15.99	-11.99	-10.06	-7.95	-4.12	1.81	7.75	11.57	13.68	15.62	19.62
36	-15.47	-11.56	-9.67	-7.61	-3.87	1.93	7.73	11.47	13.53	15.43	19.33
37	-16.52	-12.13	-10.00	-7.68	-3.48	3.05	9.57	11.77	15.09	18.22	22.61
38	-15.56	-11.24	-9.15	-6.88	-2.74	3.66	10.07	14.20	15.48	18.57	22.89
39	-14.12	-10.02	-8.03	-5.87	-1.95	4.14	10.22	14.15	15.31	18.29	22.39
40	-13.68	-9.77	-7.78	-5.61	-1.68	4.42	10.53	14.45	15.63	18.62	22.73
41	-12.42	-8.44	-6.51	-4.42	-.61	5.29	11.20	15.01	17.10	19.03	23.01
42	-9.56	-5.90	-4.12	-2.19	1.31	6.74	12.18	15.68	17.61	19.38	23.05
43	-8.09	-5.24	-3.38	-1.35	2.33	8.04	13.75	17.43	19.46	21.32	25.16
44	-10.22	-5.95	-3.88	-1.63	2.46	8.81	15.15	19.25	21.50	23.57	27.88
45	-11.66	-6.94	-4.64	-2.15	2.37	9.39	16.41	20.94	23.43	25.72	30.48
46	-12.30	-7.29	-4.86	-2.22	2.58	10.02	17.46	22.25	24.90	27.32	32.34
47	-10.24	-5.42	-3.08	-.54	4.08	11.23	18.39	23.01	25.59	27.89	32.71
48	-10.84	-5.64	-3.26	-.68	4.02	11.30	18.58	23.27	25.86	28.23	33.14
49	-11.00	-5.87	-3.38	-.68	4.23	11.84	19.45	24.36	27.05	29.55	34.68
50	-9.00	-3.94	-1.49	1.18	6.02	13.54	21.05	25.89	28.66	31.01	36.07
51	-8.63	-4.33	-1.77	1.02	6.08	13.94	21.80	26.86	29.65	32.21	37.51
52	-12.42	-6.55	-3.71	-.62	4.99	13.70	22.41	28.02	31.11	33.85	39.32
53	-13.19	-7.08	-4.09	-.88	4.96	14.02	23.08	28.92	32.14	35.09	41.19
54	-10.72	-5.10	-2.38	.58	5.96	14.29	22.63	28.01	30.97	33.69	39.30
55	-10.66	-5.12	-2.44	.46	5.78	14.00	22.22	27.52	30.44	33.12	38.68
56	-13.95	-7.68	-4.64	-1.37	4.57	13.78	22.99	28.93	32.20	35.20	41.40
57	-15.79	-12.23	-9.57	-4.59	2.64	13.86	25.08	32.31	36.30	39.96	47.52
58	-23.38	-18.02	-14.00	-6.63	1.30	13.61	25.91	33.85	38.22	42.23	50.52
59	-22.63	-14.87	-11.10	-7.00	.44	11.99	23.84	30.98	35.08	38.85	46.63
60	-24.41	-19.42	-15.07	-10.33	-1.73	11.61	24.95	33.55	38.29	42.64	51.63
61	-30.84	-21.22	-18.66	-11.70	-2.68	11.29	25.27	34.28	39.25	43.81	53.22
62	-24.41	-19.57	-15.28	-10.62	-2.16	10.97	24.10	32.56	37.22	41.50	50.35
63	-26.38	-18.07	-14.04	-9.66	-1.70	10.64	22.98	30.96	35.32	39.35	47.66
64	-24.05	-16.33	-12.59	-8.52	-1.13	10.32	21.78	29.17	33.24	36.98	44.70
65	-22.01	-14.82	-11.34	-7.55	-.67	10.01	20.68	27.56	31.35	34.83	42.02
66	-19.78	-13.17	-9.95	-6.47	-.14	9.68	19.50	25.84	29.33	32.53	39.15
67	-17.46	-11.93	-8.52	-5.34	.42	9.36	18.30	24.07	27.24	30.16	36.18
68	-15.43	-9.93	-7.27	-4.38	.88	9.04	17.19	22.45	25.35	28.01	33.50
69	-13.30	-8.35	-5.96	-3.35	1.38	8.71	16.05	20.78	23.39	25.78	30.72
70	-11.07	-6.78	-4.58	-2.28	1.91	8.40	14.89	19.07	21.38	23.49	27.87

TABLE 7.6. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

JUNE

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-6.21	-4.56	-3.67	-2.77	-1.13	1.41	3.95	5.58	6.49	7.31	9.02
1	-3.40	-2.90	-2.77	-2.49	-2.15	1.47	5.10	7.44	3.72	9.91	12.35
2	-10.99	-6.37	-7.15	-5.82	-3.42	4.66	6.47	7.60	3.02	11.54	
3	-11.96	-9.71	-8.07	-6.50	-4.09	-1.0	3.73	6.32	7.71	9.00	11.65
4	-12.90	-10.12	-8.78	-7.21	-4.66	-5.53	3.59	6.25	7.72	9.06	11.84
5	-13.31	-11.70	-9.59	-8.00	-5.27	-9.95	3.37	6.15	7.68	9.00	12.00
6	-14.00	-11.08	-10.40	-8.80	-5.94	-1.47	3.61	5.90	7.40	8.95	11.96
7	-16.40	-13.14	-11.57	-9.34	-6.72	-1.93	2.36	6.03	7.37	9.33	12.64
8	-18.38	-14.74	-12.97	-11.65	-7.56	-2.16	3.25	6.74	8.66	10.42	14.07
9	-21.51	-17.27	-15.21	-13.07	-9.31	-2.61	3.69	7.76	9.39	12.05	15.32
10	-25.43	-20.41	-17.90	-15.80	-10.55	-3.67	4.38	8.19	11.33	14.27	19.29
11	-29.23	-23.56	-20.73	-17.70	-12.23	-4.77	4.73	10.22	13.24	16.01	21.74
12	-34.16	-27.63	-24.40	-21.04	-14.75	-5.11	4.57	10.81	14.25	17.41	23.92
13	-36.50	-29.90	-27.00	-23.05	-16.50	-5.30	3.32	9.84	13.30	16.60	23.70
14	-33.94	-27.95	-25.14	-21.80	-17.15	-7.25	1.64	7.38	10.53	13.44	19.42
15	-28.54	-23.64	-21.27	-18.60	-14.36	-6.73	5.54	7.33	7.81	10.10	15.09
16	-20.50	-16.83	-15.17	-13.20	-10.75	-4.44	4.31	4.36	6.26	8.01	11.61
17	-14.33	-11.50	-10.27	-9.00	-8.00	-1.34	2.21	4.89	6.25	7.70	10.50
18	-5.68	-7.44	-6.30	-5.17	-4.03	3.63	5.76	6.96	8.04	10.20	
19	-6.31	-4.32	-3.45	-2.40	-1.59	7.27	5.24	5.35	8.20	9.93	10.36
20	-4.83	-2.96	-2.06	-1.07	0.71	7.48	6.25	8.04	9.02	9.92	11.79
21	-4.32	-2.73	-1.71	-0.51	1.40	4.51	7.62	9.22	10.73	11.74	13.94
22	-4.84	-2.56	-1.45	-0.25	2.24	5.72	8.71	10.70	12.10	13.20	15.49
23	-4.05	-1.31	-0.73	0.48	2.60	7.32	3.25	11.39	12.57	13.65	15.93
24	-3.24	-1.11	-0.73	1.05	3.10	6.27	2.44	11.49	12.61	13.65	15.79
25	-3.42	-1.20	-0.12	1.04	3.17	6.46	3.75	11.97	13.04	14.11	16.33
26	-4.11	-1.72	-0.55	0.71	3.01	6.57	10.13	12.42	13.69	14.85	17.25
27	-4.51	-2.02	-0.82	0.40	3.39	6.57	10.27	12.65	13.96	15.17	17.66
28	-4.16	-1.49	-0.20	1.21	3.76	7.72	11.68	14.23	15.84	16.93	19.60
29	-4.62	-1.85	-0.51	0.95	3.60	7.70	11.81	14.46	15.92	17.26	20.02
30	-4.01	-1.26	0.07	1.52	4.15	8.24	12.32	14.95	16.40	17.74	20.49
31	-3.36	-0.64	0.67	2.10	4.70	8.73	12.77	15.37	16.80	18.11	20.63
32	-4.29	-1.38	0.03	1.56	4.35	8.67	12.98	15.77	17.30	18.71	21.62
33	-3.51	-0.80	0.51	1.94	4.53	8.55	12.57	15.16	16.59	17.90	20.61
34	-5.18	-2.05	-0.53	1.11	4.11	8.75	13.39	16.38	18.03	19.54	22.67
35	-5.23	-2.07	-0.54	1.12	4.14	8.82	13.50	16.52	18.18	19.71	22.86
36	-6.18	-2.61	-0.83	0.99	4.41	9.70	15.00	18.41	20.29	22.02	25.58
37	-4.98	-1.42	0.30	2.17	5.57	10.84	16.11	19.51	21.38	23.10	26.65
38	-4.59	-0.96	0.79	2.70	6.17	11.96	16.94	20.41	22.32	24.08	27.71
39	-3.31	0.20	1.90	3.76	7.12	12.33	17.55	20.91	22.76	24.47	27.98
40	-2.23	1.09	2.70	4.46	7.64	12.57	17.51	20.69	22.45	24.06	27.38
41	-2.71	0.87	2.61	4.50	7.93	13.24	18.56	21.99	23.88	25.61	29.20
42	-1.71	1.90	3.65	5.56	9.02	14.39	19.76	23.22	25.13	26.88	30.49
43	-1.00	2.84	4.70	6.72	10.39	16.08	21.78	25.45	27.47	29.33	33.17
44	0.60	4.60	6.54	8.65	12.48	18.43	24.37	28.20	30.31	32.25	36.26
45	0.33	4.69	6.80	9.10	13.27	19.75	26.22	30.40	32.69	34.81	39.17
46	0.66	5.26	7.48	9.91	14.31	21.13	27.96	32.36	34.78	37.01	41.61
47	1.98	6.63	8.88	11.33	15.78	22.68	29.58	34.03	36.48	38.73	43.38
48	2.92	7.74	10.07	12.61	17.22	24.37	31.52	36.13	38.66	41.00	45.81
49	2.40	7.64	10.19	12.95	17.97	25.76	33.55	38.57	41.34	43.88	49.13
50	1.92	7.27	9.86	12.68	17.80	25.74	33.68	38.80	41.62	44.21	49.56
51	1.65	7.14	9.80	12.70	17.96	26.12	34.27	39.54	42.43	45.09	50.59
52	0.13	5.94	8.75	11.81	17.38	26.00	34.62	40.19	43.25	46.06	51.87
53	-2.28	4.08	7.16	10.50	16.59	26.02	35.45	41.53	44.88	47.96	54.31
54	-1.41	4.67	7.62	10.82	16.64	25.67	34.69	40.51	43.72	46.66	52.75
55	-1.99	4.18	7.16	10.41	16.32	25.47	34.63	40.53	43.78	46.77	52.93
56	-1.94	4.19	7.16	10.40	16.27	25.37	34.48	40.35	43.58	46.55	52.69
57	-7.65	-5.52	2.93	6.68	13.51	24.08	34.66	41.48	45.23	48.69	55.81
58	-9.47	-2.12	1.44	5.32	12.36	23.27	34.19	41.23	45.11	48.67	56.02
59	-15.20	-6.84	-2.78	1.62	9.63	22.04	34.45	42.46	46.86	50.91	59.28
60	-9.16	-2.02	1.43	5.19	12.02	22.61	33.20	40.03	43.79	47.25	54.38
61	-13.45	-5.56	-1.74	2.41	9.96	21.67	33.37	40.92	45.07	48.89	56.78
62	-12.24	-4.84	-1.26	2.64	9.72	20.70	31.68	38.76	42.66	46.24	53.63
63	-10.80	-3.94	-0.62	3.00	9.56	19.74	29.93	36.49	40.11	43.43	50.29
64	-9.59	-3.22	-0.13	3.23	9.33	18.78	28.24	34.34	37.70	40.78	47.15
65	-8.37	-2.48	0.36	3.47	9.10	17.83	26.56	32.19	35.29	38.14	44.02
66	-7.15	-1.76	0.86	3.70	8.86	16.87	24.88	30.04	32.48	35.50	40.89
67	-5.94	-1.03	1.34	3.93	8.63	15.91	23.19	27.89	30.47	32.85	37.75
68	-4.51	-0.14	1.98	4.28	8.46	14.95	21.44	25.63	27.93	30.05	34.42
69	-3.31	0.57	2.46	4.50	8.22	13.99	19.75	23.47	25.52	27.40	31.20
70	-2.09	1.30	2.95	4.74	7.99	13.03	18.08	21.33	23.12	24.76	28.16

TABLE 7.7. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

JULY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-4.85	-3.39	-2.68	-1.90	-1.50	1.68	3.66	5.26	6.03	6.74	8.21
1	-9.13	-6.63	-5.42	-4.11	-1.72	1.93	5.70	8.09	9.40	10.61	13.11
2	-9.71	-7.31	-6.14	-4.88	-2.57	.99	4.56	6.86	8.13	9.30	11.70
3	-10.00	-7.61	-6.45	-5.19	-2.90	.65	4.20	6.49	7.75	8.90	11.29
4	-11.08	-8.49	-7.24	-5.97	-3.39	.46	4.31	6.79	8.15	9.41	12.00
5	-11.97	-9.24	-7.91	-6.47	-3.86	.19	4.25	6.96	8.30	9.62	12.35
6	-13.03	-10.09	-8.67	-7.12	-4.31	.05	4.41	7.22	8.77	10.19	13.17
7	-13.25	-10.28	-8.83	-7.27	-4.41	.01	4.43	7.28	8.85	10.29	13.27
8	-13.92	-10.84	-9.34	-7.71	-4.76	-.18	4.40	7.35	8.99	10.48	13.57
9	-15.41	-12.04	-10.41	-8.64	-5.41	-.41	4.59	7.82	9.60	11.23	14.60
10	-17.15	-13.47	-11.69	-9.75	-6.23	-.77	4.70	8.22	10.16	11.94	15.62
11	-19.40	-15.31	-13.32	-11.17	-7.25	-1.17	4.30	8.92	10.97	12.96	17.05
12	-22.09	-17.49	-15.27	-12.85	-8.45	-1.63	5.19	9.59	12.01	14.24	18.83
13	-24.84	-19.78	-17.34	-14.67	-9.80	-2.33	5.17	10.01	12.68	15.12	20.19
14	-22.86	-18.27	-16.05	-12.64	-9.25	-2.45	4.35	8.78	11.16	13.38	17.96
15	-16.96	-13.45	-11.75	-9.90	-6.53	-1.32	3.30	7.26	9.11	10.81	14.33
16	-11.15	-8.62	-7.40	-6.07	-3.65	.11	3.86	6.28	7.61	8.83	11.36
17	-8.04	-5.92	-4.89	-3.73	-1.75	1.40	4.55	6.58	7.70	8.77	10.95
18	-5.44	-3.51	-2.57	-1.56	-.29	3.15	6.02	7.86	8.88	9.42	11.74
19	-3.09	-1.38	-.55	.35	1.99	4.53	7.06	8.70	9.60	10.43	12.14
20	-2.07	-.30	.55	1.48	3.17	5.79	8.42	10.11	11.04	11.89	13.66
21	-2.78	-.57	.50	1.67	3.79	7.07	10.36	12.48	13.64	14.72	16.93
22	-2.44	-.10	1.02	2.26	4.50	7.96	11.43	13.67	14.90	16.03	18.37
23	-1.23	.97	2.03	3.19	5.23	8.54	11.79	13.89	15.05	16.11	18.31
24	-.23	1.85	2.80	3.96	5.95	9.04	12.13	14.13	15.22	16.23	18.32
25	.01	2.08	3.08	4.16	6.14	9.20	12.26	14.23	15.32	16.32	18.33
26	-1.13	1.24	2.38	3.63	5.90	9.42	12.94	15.20	16.45	17.60	19.97
27	-1.65	.85	2.06	3.37	5.76	9.47	13.17	15.56	16.89	18.09	20.59
28	-1.30	1.04	2.18	3.41	5.66	9.13	12.61	14.85	16.08	17.22	19.56
29	.25	2.97	3.69	4.91	7.13	10.57	14.01	16.22	17.44	18.57	20.88
30	-.13	2.48	3.75	5.13	7.63	11.50	15.38	17.88	19.26	20.52	23.14
31	.51	3.08	4.33	5.69	8.16	11.99	15.61	18.28	19.64	20.89	23.46
32	.99	3.64	4.92	6.32	8.85	12.78	16.71	19.25	20.65	21.93	24.58
33	-.51	2.91	3.97	5.36	8.45	12.93	17.40	20.29	21.88	23.34	26.36
34	-.88	2.26	3.77	5.43	8.43	13.08	17.73	20.73	22.38	23.90	27.03
35	-.88	2.48	4.11	5.48	9.10	14.09	19.07	22.29	24.06	25.69	29.05
36	-.42	3.58	5.11	6.78	9.81	14.51	19.20	22.23	23.90	25.43	28.60
37	-.09	3.20	4.79	6.53	9.67	14.56	19.44	22.58	24.32	25.91	29.20
38	-2.29	1.72	3.66	5.77	9.60	15.54	21.49	25.32	27.43	29.37	33.37
39	.16	3.44	5.62	7.56	11.08	16.54	22.00	25.53	27.46	29.25	32.92
40	1.89	4.31	6.97	8.77	12.04	17.12	22.20	25.47	27.27	28.93	32.35
41	-.68	3.39	5.37	7.51	11.41	17.46	23.50	27.40	29.54	31.52	35.59
42	1.76	5.48	7.28	9.24	12.80	18.31	23.83	27.38	29.34	31.14	34.86
43	1.75	5.78	7.73	9.85	13.71	19.69	25.67	29.53	31.66	33.61	37.64
44	2.43	6.77	8.87	11.16	15.31	21.75	28.18	32.34	34.62	36.72	41.06
45	1.40	6.50	8.97	11.65	16.53	24.10	31.66	36.54	39.22	41.69	46.79
46	3.81	8.83	11.26	13.90	18.70	26.14	33.59	38.39	41.03	43.46	48.48
47	5.17	10.20	12.63	15.29	20.10	27.57	35.04	39.85	42.50	44.94	49.97
48	4.94	10.24	12.81	15.61	20.69	28.56	36.44	41.51	44.31	46.88	52.18
49	6.23	11.51	14.08	16.85	21.90	29.73	37.57	42.62	45.40	47.96	53.24
50	7.14	12.35	14.88	17.63	22.62	30.37	38.11	43.10	45.85	48.38	53.59
51	6.58	11.90	14.47	17.28	22.36	30.26	38.15	43.24	46.04	48.61	53.93
52	3.30	9.28	12.18	15.34	21.06	29.95	38.83	44.56	47.71	50.61	56.59
53	.30	6.91	10.11	13.60	19.93	29.75	39.57	45.90	49.38	52.59	59.20
54	-2.65	4.54	8.02	11.81	18.70	29.37	40.04	46.92	50.71	54.19	61.38
55	-6.79	1.33	5.27	9.55	17.33	29.38	41.44	49.21	53.50	57.43	65.55
56	-10.08	-1.39	2.81	7.39	15.70	28.58	41.47	49.78	54.36	58.56	67.24
57	-9.99	-1.30	2.90	7.48	15.80	28.69	41.58	49.89	54.47	58.68	67.36
58	-10.00	-1.75	2.25	6.60	14.49	26.74	38.98	46.88	51.22	55.22	63.47
59	-13.95	-4.73	-.46	4.19	12.63	25.72	38.81	47.25	51.90	56.17	64.99
60	-20.80	-10.24	-5.13	.44	10.54	26.21	41.88	51.99	57.55	62.67	73.23
61	-14.19	-5.36	-1.08	3.57	12.02	25.13	38.24	46.69	51.35	55.63	64.46
62	-12.95	-4.65	-.62	3.75	11.70	24.03	36.36	44.32	48.69	52.72	61.02
63	-11.88	-4.00	-.22	3.90	11.37	22.95	34.53	42.00	46.12	49.90	57.70
64	-10.57	-3.29	.23	4.07	11.04	21.85	32.66	39.63	43.47	47.00	54.28
65	-9.96	-2.75	.55	4.14	10.66	20.77	30.88	37.40	40.98	44.28	51.09
66	-8.36	-2.06	.99	4.30	10.33	19.67	29.01	35.04	38.35	41.40	47.70
67	-7.16	-1.38	1.42	4.47	10.01	18.59	27.17	32.70	35.75	38.55	44.33
68	-6.29	-.95	1.64	4.45	9.56	17.49	25.41	30.52	33.34	35.92	41.26
69	-4.98	-.12	2.20	4.72	9.30	16.40	23.51	28.09	30.61	32.92	37.71
70	-3.79	.50	2.58	4.84	8.94	15.31	21.67	25.77	28.03	30.11	34.40

TABLE 7.8. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS

60 DEGREE FLIGHT AZIMUTH

AUGUST

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-5.22	-7.96	-3.20	-2.48	-1.17	.86	2.88	4.19	4.91	5.57	6.94
1	-3.30	-6.55	-5.40	-4.18	-1.94	1.54	5.02	7.27	8.50	9.64	11.93
2	-8.91	-6.72	-5.66	-4.50	-2.41	.84	4.09	6.19	7.34	8.41	10.59
3	-9.43	-7.21	-6.11	-4.92	-2.74	.62	3.99	6.16	7.35	8.45	10.72
4	-9.75	-7.41	-6.28	-5.05	-2.82	.65	4.11	6.25	7.58	8.71	11.05
5	-10.39	-8.13	-7.00	-5.75	-3.30	.43	4.23	6.72	8.07	9.30	11.86
6	-11.35	-8.75	-7.40	-6.11	-3.62	.25	4.12	6.61	7.98	9.24	11.85
7	-12.05	-9.31	-7.77	-6.53	-3.31	.17	4.24	6.97	8.31	9.64	12.39
8	-13.34	-10.78	-8.95	-7.39	-4.56	-.17	4.22	7.05	8.61	10.04	13.00
9	-14.43	-11.32	-9.73	-8.11	-5.03	-.37	4.37	7.36	9.03	10.57	13.74
10	-17.03	-17.38	-11.61	-9.60	-6.19	-.76	4.66	8.15	10.08	11.85	15.50
11	-19.61	-16.43	-13.40	-11.20	-7.19	-.93	5.23	9.23	11.44	13.40	17.65
12	-22.40	-17.74	-15.45	-12.97	-8.45	-1.45	5.56	10.07	12.56	14.85	19.57
13	-23.32	-19.05	-16.77	-14.13	-9.47	-2.24	4.93	9.65	12.21	14.57	19.44
14	-26.35	-16.28	-14.31	-12.17	-9.27	-2.23	3.21	7.70	9.84	11.81	15.88
15	-14.27	-11.28	-9.34	-8.27	-5.41	-.98	3.45	6.31	7.89	9.32	12.31
16	-9.00	-7.35	-6.26	-5.07	-2.31	.44	3.70	5.35	7.14	8.24	10.40
17	-6.86	-4.37	-3.31	-2.36	-.36	1.39	4.25	6.35	7.30	8.96	11.85
18	-5.12	-3.26	-2.28	-1.27	.56	3.40	6.24	8.06	9.09	10.01	11.93
19	-2.59	-1.02	-.21	.77	2.25	4.74	7.22	8.81	9.69	10.50	12.17
20	-1.64	.10	.54	1.86	7.53	6.11	8.69	10.36	11.27	12.12	13.85
21	-1.23	.61	1.53	2.50	4.34	7.16	9.37	11.79	12.79	13.71	15.60
22	-1.16	.89	1.80	2.67	4.94	7.98	11.03	13.00	14.08	15.07	17.13
23	-.13	1.67	2.64	3.60	5.61	9.57	11.54	13.45	14.50	15.47	17.47
24	.15	2.17	3.17	4.17	6.06	8.99	11.93	13.82	14.96	15.92	17.80
25	.36	2.13	3.13	4.21	6.13	9.75	12.32	14.29	15.39	16.38	18.44
26	.71	1.49	2.56	3.72	5.87	9.10	12.38	14.45	15.65	16.72	18.92
27	-.96	1.32	2.43	3.63	5.81	9.19	12.59	14.76	15.96	17.06	19.34
28	1.00	3.02	4.01	5.07	7.02	10.03	13.04	14.98	16.05	17.03	19.06
29	-.75	1.77	2.99	4.32	6.73	10.48	14.22	16.64	17.97	19.19	21.71
30	-.02	2.52	3.75	5.09	7.53	11.30	15.08	17.51	18.85	20.08	22.62
31	.18	2.89	4.20	5.62	8.21	12.22	16.24	18.83	20.25	21.56	24.26
32	-1.55	1.61	3.14	4.81	7.83	12.52	17.21	20.23	21.90	23.43	26.59
33	-.08	2.72	4.08	5.56	8.24	12.40	16.56	19.24	20.72	22.07	24.80
34	-2.97	.51	2.19	4.02	7.35	12.52	17.68	21.01	22.84	24.53	28.01
35	-3.89	.27	1.48	3.39	6.85	12.22	17.60	21.06	22.97	24.72	28.34
36	-3.63	.08	1.87	3.82	7.37	12.86	18.36	21.90	23.86	25.65	29.35
37	-3.30	-.39	2.18	4.13	7.67	13.16	18.65	22.19	24.14	25.93	29.62
38	-5.51	-1.10	1.04	3.37	7.59	14.14	20.68	24.31	27.23	29.37	33.78
39	-3.63	.33	2.25	4.34	8.13	14.01	19.89	23.68	25.77	27.69	31.65
40	-5.80	-1.41	.71	3.02	7.22	13.73	20.24	24.44	26.75	28.87	33.26
41	-6.31	-1.77	.42	2.81	7.16	13.89	20.62	24.96	27.35	29.55	34.09
42	-6.46	-1.73	.56	2.05	7.58	14.60	21.62	26.14	28.64	30.93	35.65
43	-2.80	1.54	3.64	5.93	10.08	16.52	22.97	27.12	29.41	31.51	35.85
44	-5.47	-.23	2.32	5.08	10.11	17.90	25.69	30.72	33.48	36.02	41.27
45	-4.83	.61	3.25	6.11	11.32	19.40	27.48	32.68	35.55	38.19	43.63
46	-6.09	-.11	2.79	5.94	11.67	20.55	29.43	35.16	39.31	41.21	47.19
47	-9.08	-2.22	1.11	4.72	11.29	21.47	31.66	38.22	41.84	45.16	52.02
48	-6.66	-.36	2.69	5.01	12.03	21.37	30.72	36.74	40.06	43.11	49.40
49	-6.96	-.80	2.19	5.44	11.34	20.48	29.63	35.53	38.78	41.77	47.93
50	-5.72	-2.20	.95	4.39	10.63	20.30	29.97	36.21	39.65	42.80	49.32
51	-8.30	-1.72	1.47	4.94	11.24	21.01	30.79	37.09	40.56	43.75	50.33
52	-7.65	-1.14	2.01	5.44	11.67	21.34	31.00	37.24	40.67	43.82	50.33
53	-10.56	-3.67	-.34	3.29	9.88	20.09	30.31	36.90	40.52	43.86	50.74
54	-13.63	-6.23	-2.65	1.25	8.33	19.32	30.30	37.38	41.28	44.86	52.26
55	-19.26	-10.81	-6.72	-2.27	5.82	18.36	30.90	38.99	43.44	47.54	55.99
56	-20.54	-12.32	-8.34	-4.01	3.86	16.05	28.25	36.12	40.45	44.43	52.64
57	-25.29	-16.30	-11.94	-7.20	1.40	14.75	28.10	36.71	41.45	45.60	54.79
58	-32.71	-22.18	-17.09	-11.53	-1.46	14.16	29.79	39.86	45.41	50.51	61.04
59	-34.26	-23.64	-18.50	-12.90	-2.73	13.04	28.80	38.97	44.57	49.71	60.34
60	-37.39	-25.41	-19.60	-13.28	-1.81	15.97	33.76	45.23	51.55	57.35	69.34
61	-32.47	-21.69	-16.47	-10.79	-.46	15.54	31.55	41.67	47.55	52.77	63.56
62	-30.38	-20.63	-15.62	-10.16	-.25	15.11	30.47	40.38	45.83	50.85	61.20
63	-29.48	-19.56	-14.76	-9.54	-.05	14.67	29.39	38.88	44.10	48.91	58.82
64	-28.06	-18.56	-13.96	-8.96	.14	14.24	28.34	37.43	42.44	47.04	56.54
65	-27.05	-17.88	-13.44	-8.60	.18	13.80	27.42	36.20	41.04	45.48	54.65
66	-25.87	-17.06	-12.79	-8.15	.28	13.35	26.43	34.86	39.50	43.77	52.57
67	-24.80	-16.33	-12.23	-7.76	.35	12.92	25.49	33.60	38.07	42.17	50.64
68	-23.88	-15.71	-11.76	-7.46	.36	12.48	24.60	32.42	36.72	40.68	48.65
69	-23.15	-15.25	-11.42	-7.25	.32	12.05	23.78	31.35	35.52	39.35	47.25
70	-22.57	-14.89	-11.17	-7.13	.22	11.61	23.01	30.35	34.40	38.12	45.79

TABLE 7.9. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

SEPTEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.1E	-5.42	-4.58	-3.67	-2.01	.57	3.15	4.81	5.73	6.57	8.31
1	-12.67	-9.52	-7.99	-5.32	-3.31	1.39	6.06	9.08	10.74	12.27	15.42
2	-12.86	-9.80	-8.32	-6.71	-3.78	.76	5.31	8.24	9.85	11.33	14.39
3	-13.05	-10.03	-8.57	-6.98	-4.09	.40	4.89	7.79	9.37	10.94	13.85
4	-12.88	-9.95	-8.54	-7.00	-4.20	.13	4.47	7.26	8.80	10.22	13.14
5	-13.60	-10.59	-9.12	-7.53	-4.65	-.17	4.31	7.20	8.79	10.25	13.27
6	-14.78	-11.56	-10.00	-8.30	-5.22	-.44	4.34	7.42	9.12	10.57	13.99
7	-15.51	-12.16	-10.53	-8.77	-5.56	-.59	4.38	7.59	9.35	10.57	14.32
8	-16.68	-13.16	-11.45	-9.60	-6.23	-1.00	4.23	7.60	9.45	11.10	14.63
9	-18.37	-14.58	-12.74	-10.74	-7.11	-1.48	4.15	7.78	9.78	11.62	15.41
10	-21.65	-17.29	-15.13	-12.38	-8.70	-2.23	4.24	8.42	10.72	12.83	17.13
11	-25.19	-20.21	-17.80	-15.17	-10.40	-3.01	4.39	9.16	11.79	14.20	19.19
12	-29.16	-23.52	-20.73	-17.82	-12.42	-4.05	4.32	9.72	12.70	15.43	21.07
13	-31.73	-25.65	-22.70	-19.50	-14.68	-4.65	4.38	10.20	13.40	16.35	22.43
14	-30.62	-24.77	-21.94	-18.85	-13.25	-4.57	4.11	9.71	12.80	15.63	21.43
15	-24.18	-19.48	-17.20	-14.72	-10.23	-3.25	3.72	8.22	10.70	12.57	17.67
16	-16.12	-12.98	-11.31	-9.50	-6.50	-1.70	3.11	5.21	7.32	9.44	12.73
17	-11.62	-9.01	-7.75	-6.37	-3.82	-.00	3.87	6.37	7.74	9.61	11.62
18	-8.24	-6.09	-5.05	-3.91	-1.86	1.33	4.52	6.58	7.71	9.75	10.97
19	-5.76	-3.90	-3.00	-2.02	-.24	2.52	5.28	7.06	8.04	8.94	10.80
20	-4.36	-2.56	-1.68	-.73	.99	3.67	6.34	8.07	9.22	9.99	11.63
21	-3.61	-1.75	-.84	.13	1.91	4.67	7.43	9.21	10.19	11.00	12.95
22	-3.15	-1.26	-.35	.65	2.46	5.26	3.06	9.87	10.36	11.78	13.67
23	-2.71	-.83	.02	1.07	2.87	5.67	8.46	10.26	11.25	12.16	14.04
24	-2.82	-.89	.04	1.05	2.89	5.74	8.53	10.42	11.44	12.37	14.23
25	-3.82	-1.42	-.40	.71	2.72	5.84	8.97	10.98	12.09	13.11	15.21
26	-3.71	-1.39	-.56	.56	2.60	5.75	8.90	10.93	12.05	13.08	15.21
27	-5.48	-2.97	-1.76	-.43	1.98	5.71	9.44	11.84	13.17	14.38	16.90
28	-3.82	-1.61	-.54	.63	2.75	6.03	9.32	11.43	12.60	13.67	15.88
29	-4.27	-1.86	-.69	.58	2.88	6.45	10.02	12.33	13.60	14.76	17.17
30	-6.70	-3.77	-2.35	-.81	2.00	6.35	10.70	13.50	15.05	16.47	19.40
31	-5.22	-2.44	-1.10	.36	3.01	7.13	11.24	13.90	15.36	16.70	19.47
32	-6.70	-3.56	-2.04	-.39	2.62	7.28	11.93	14.94	16.59	18.11	21.25
33	-5.89	-2.94	-1.51	.04	2.87	7.25	11.63	14.45	16.01	17.44	20.39
34	-8.33	-5.02	-3.42	-1.68	1.49	6.40	11.31	14.47	16.22	17.82	21.12
35	-10.79	-7.06	-5.25	-3.27	.30	5.85	11.40	14.98	16.95	18.76	22.50
36	-12.27	-8.27	-6.34	-4.23	-.41	5.52	11.45	15.27	17.38	19.31	23.30
37	-11.70	-7.84	-5.98	-3.94	-.25	5.47	11.20	14.89	16.92	18.79	22.65
38	-12.09	-8.13	-6.20	-4.11	-.32	5.57	11.46	15.26	17.35	19.27	23.24
39	-13.53	-9.17	-7.06	-4.77	-.59	5.88	12.35	16.52	18.81	20.93	25.29
40	-14.32	-9.83	-7.66	-5.29	-.99	5.67	12.34	16.63	19.00	21.17	25.66
41	-16.62	-11.94	-9.58	-7.01	-2.33	4.91	12.16	16.83	19.40	21.76	26.64
42	-19.06	-13.74	-11.17	-8.36	-3.27	4.63	12.52	17.62	20.42	23.00	28.32
43	-18.38	-12.84	-10.16	-7.25	-1.95	6.27	14.48	19.78	22.70	25.38	30.91
44	-19.77	-13.72	-10.78	-7.59	-1.80	7.19	16.17	21.96	25.16	28.09	34.14
45	-20.47	-14.37	-11.41	-8.19	-2.35	6.72	15.78	21.63	24.85	27.81	33.91
46	-19.34	-13.34	-10.44	-7.28	-1.54	7.36	16.25	21.99	25.15	28.06	34.05
47	-16.55	-11.14	-8.51	-5.66	-.48	7.56	15.59	20.77	23.63	26.25	31.66
48	-15.85	-10.62	-8.09	-5.33	-.32	7.45	15.21	20.22	22.98	25.51	30.75
49	-15.43	-10.21	-7.69	-4.94	.05	7.78	15.52	20.51	23.26	25.78	31.00
50	-17.15	-11.77	-9.17	-6.34	-1.19	6.79	14.77	19.92	22.75	25.36	30.73
51	-18.63	-12.95	-10.20	-7.20	-1.77	6.66	15.09	20.52	23.51	26.26	31.94
52	-18.85	-12.90	-10.02	-6.88	-1.18	7.66	16.49	22.19	25.33	28.21	34.16
53	-18.20	-12.30	-9.44	-6.32	-.67	8.10	16.86	22.51	25.63	28.49	34.39
54	-21.55	-15.14	-12.04	-8.67	-2.54	6.97	16.47	22.60	25.98	29.08	35.49
55	-25.65	-18.63	-15.23	-11.54	-4.82	5.59	16.01	22.73	26.42	29.82	36.84
56	-25.95	-18.77	-15.30	-11.51	-4.64	6.01	16.67	23.54	27.32	30.80	37.98
57	-27.43	-19.91	-16.27	-12.31	-5.11	6.05	17.21	24.40	28.37	32.01	39.53
58	-30.44	-22.33	-18.41	-14.13	-6.37	5.66	17.69	25.45	29.72	33.64	41.75
59	-24.41	-17.64	-14.37	-10.80	-4.32	5.72	15.77	22.25	25.81	29.09	35.86
60	-33.33	-25.46	-21.65	-17.50	-9.97	1.71	13.38	20.92	25.06	28.87	36.74
61	-31.81	-24.28	-20.64	-16.67	-9.46	1.72	12.89	20.10	24.07	27.71	35.24
62	-31.02	-23.67	-20.11	-16.24	-9.20	1.71	12.62	19.66	23.53	27.09	34.44
63	-30.51	-23.27	-19.77	-15.95	-9.03	1.71	12.45	19.36	23.19	26.70	33.93
64	-29.72	-22.66	-19.25	-15.53	-8.77	1.71	12.18	18.94	22.66	26.08	33.13
65	-29.05	-22.14	-18.80	-15.16	-8.55	1.70	11.95	18.56	22.20	25.55	32.46
66	-28.37	-21.61	-18.34	-14.78	-8.32	1.71	11.73	18.20	21.76	25.03	31.78
67	-27.58	-21.01	-17.82	-14.35	-8.06	1.70	11.46	17.76	21.22	24.41	30.98
68	-27.06	-20.60	-17.48	-14.07	-7.89	1.70	11.29	17.48	20.88	24.01	30.47
69	-26.28	-20.00	-16.95	-13.64	-7.63	1.70	11.02	17.04	20.35	23.39	29.67
70	-25.60	-19.47	-16.50	-13.27	-7.40	1.70	10.80	16.67	19.90	22.87	29.00

TABLE 7.10. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

OCTOBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.70	-7.67	-6.67	-5.63	-4.69	-3.82	-3.02	-2.25	-1.52	-0.83	-0.18
1	-14.42	-11.29	-9.70	-8.11	-6.51	-4.92	-3.32	-1.73	-1.04	-0.39	0.26
2	-19.18	-14.18	-11.63	-9.70	-7.77	-5.84	-3.91	-2.00	-1.31	-0.66	0.09
3	-23.94	-17.94	-14.39	-11.84	-9.91	-7.98	-6.05	-4.14	-2.45	-1.36	-0.47
4	-28.70	-20.70	-16.15	-13.60	-11.67	-9.74	-7.81	-5.90	-3.81	-2.32	-1.03
5	-33.46	-23.46	-17.91	-15.36	-13.43	-11.50	-9.57	-7.66	-5.37	-3.68	-2.19
6	-38.22	-26.22	-20.17	-17.62	-15.69	-13.76	-11.83	-9.92	-7.43	-5.44	-3.75
7	-42.98	-29.02	-22.87	-19.87	-17.94	-16.01	-14.08	-12.17	-9.48	-7.19	-5.10
8	-47.74	-31.78	-25.53	-22.53	-20.60	-18.67	-16.74	-14.83	-11.94	-9.45	-7.16
9	-52.50	-34.54	-28.29	-25.29	-23.36	-21.43	-19.50	-17.59	-14.70	-12.01	-9.52
10	-57.26	-37.30	-31.05	-28.05	-26.12	-24.19	-22.26	-20.35	-17.46	-14.57	-11.63
11	-62.02	-40.06	-33.81	-30.81	-28.88	-26.95	-25.02	-23.11	-20.22	-17.33	-14.39
12	-66.78	-42.82	-36.57	-33.57	-31.64	-29.71	-27.78	-25.87	-22.98	-20.09	-17.15
13	-71.54	-45.58	-39.33	-36.33	-34.40	-32.47	-30.54	-28.63	-25.74	-22.85	-19.91
14	-76.30	-48.34	-42.09	-39.09	-37.16	-35.23	-33.30	-31.39	-28.50	-25.61	-22.67
15	-81.06	-51.10	-44.85	-41.85	-39.92	-37.99	-36.06	-34.15	-31.26	-28.37	-25.43
16	-85.82	-53.86	-47.61	-44.61	-42.68	-40.75	-38.82	-36.91	-34.02	-31.13	-28.19
17	-90.58	-56.62	-50.37	-47.37	-45.44	-43.51	-41.58	-39.67	-36.78	-33.89	-30.95
18	-95.34	-59.38	-53.13	-50.13	-48.20	-46.27	-44.34	-42.43	-39.54	-36.65	-33.71
19	-100.10	-62.14	-55.89	-52.89	-50.96	-49.03	-47.10	-45.19	-42.30	-39.41	-36.47
20	-104.86	-64.90	-58.65	-55.65	-53.72	-51.79	-49.86	-47.95	-45.06	-42.17	-39.23
21	-109.62	-67.66	-61.41	-58.41	-56.48	-54.55	-52.62	-50.71	-47.82	-44.93	-42.09
22	-114.38	-70.42	-64.17	-61.17	-59.24	-57.31	-55.38	-53.47	-50.58	-47.69	-44.85
23	-119.14	-73.18	-66.93	-63.93	-62.00	-60.07	-58.14	-56.23	-53.34	-50.45	-47.61
24	-123.90	-75.94	-69.69	-66.69	-64.76	-62.83	-60.90	-59.00	-56.11	-53.22	-50.37
25	-128.66	-78.70	-72.45	-69.45	-67.52	-65.59	-63.66	-61.75	-58.86	-55.97	-53.13
26	-133.42	-81.46	-75.21	-72.21	-70.28	-68.35	-66.42	-64.51	-61.62	-58.73	-55.89
27	-138.18	-84.22	-77.97	-74.97	-73.04	-71.11	-69.18	-67.27	-64.38	-61.49	-58.65
28	-142.94	-86.98	-80.73	-77.73	-75.80	-73.87	-71.94	-70.03	-67.14	-64.25	-61.41
29	-147.70	-89.74	-83.49	-80.49	-78.56	-76.63	-74.70	-72.79	-69.90	-67.01	-64.17
30	-152.46	-92.50	-86.25	-83.25	-81.32	-79.39	-77.46	-75.55	-72.66	-69.77	-66.93
31	-157.22	-95.26	-89.01	-86.01	-84.08	-82.15	-80.22	-78.31	-75.42	-72.53	-69.69
32	-161.98	-98.02	-91.77	-88.77	-86.84	-84.91	-82.98	-81.07	-78.18	-75.29	-72.45
33	-166.74	-100.78	-94.53	-91.53	-89.60	-87.67	-85.74	-83.83	-80.94	-78.05	-75.21
34	-171.50	-103.54	-97.29	-94.29	-92.36	-90.43	-88.50	-86.59	-83.70	-80.81	-77.97
35	-176.26	-106.30	-100.05	-97.05	-95.12	-93.19	-91.26	-89.35	-86.46	-83.57	-80.73
36	-181.02	-109.06	-102.81	-99.81	-97.88	-95.95	-94.02	-92.11	-89.22	-86.33	-83.49
37	-185.78	-111.82	-105.57	-102.57	-100.64	-98.71	-96.78	-94.87	-91.98	-89.09	-86.25
38	-190.54	-114.58	-108.33	-105.33	-103.40	-101.47	-99.54	-97.63	-94.74	-91.85	-89.01
39	-195.30	-117.34	-111.09	-108.09	-106.16	-104.23	-102.30	-100.39	-97.50	-94.61	-91.77
40	-200.06	-120.10	-113.85	-110.85	-108.92	-106.99	-105.06	-103.15	-100.26	-97.37	-94.53
41	-204.82	-122.86	-116.61	-113.61	-111.68	-109.75	-107.82	-105.91	-103.02	-100.13	-97.29
42	-209.58	-125.62	-119.37	-116.37	-114.44	-112.51	-110.58	-108.67	-105.78	-102.89	-100.05
43	-214.34	-128.38	-122.13	-119.13	-117.20	-115.27	-113.34	-111.43	-108.54	-105.65	-102.81
44	-219.10	-131.14	-124.89	-121.89	-119.96	-118.03	-116.10	-114.19	-111.30	-108.41	-105.57
45	-223.86	-133.90	-127.65	-124.65	-122.72	-120.79	-118.86	-116.95	-114.06	-111.17	-108.33
46	-228.62	-136.66	-130.41	-127.41	-125.48	-123.55	-121.62	-119.71	-116.82	-113.93	-111.09
47	-233.38	-139.42	-133.17	-130.17	-128.24	-126.31	-124.38	-122.47	-119.58	-116.69	-113.85
48	-238.14	-142.18	-135.93	-132.93	-131.00	-129.07	-127.14	-125.23	-122.34	-119.45	-116.61
49	-242.90	-144.94	-138.69	-135.69	-133.76	-131.83	-129.90	-127.99	-125.10	-122.21	-119.37
50	-247.66	-147.70	-141.45	-138.45	-136.52	-134.59	-132.66	-130.75	-127.86	-124.97	-122.13
51	-252.42	-150.46	-144.21	-141.21	-139.28	-137.35	-135.42	-133.51	-130.62	-127.73	-124.89
52	-257.18	-153.22	-146.97	-143.97	-142.04	-140.11	-138.18	-136.27	-133.38	-130.49	-127.65
53	-261.94	-155.98	-149.73	-146.73	-144.80	-142.87	-140.94	-139.03	-136.14	-133.25	-130.41
54	-266.70	-158.74	-152.49	-149.49	-147.56	-145.63	-143.70	-141.79	-138.90	-136.01	-133.17
55	-271.46	-161.50	-155.25	-152.25	-150.32	-148.39	-146.46	-144.55	-141.66	-138.77	-135.93
56	-276.22	-164.26	-158.01	-155.01	-153.08	-151.15	-149.22	-147.31	-144.42	-141.53	-138.69
57	-280.98	-167.02	-160.77	-157.77	-155.84	-153.91	-151.98	-150.07	-147.18	-144.29	-141.45
58	-285.74	-169.78	-163.53	-160.53	-158.60	-156.67	-154.74	-152.83	-149.94	-147.05	-144.21
59	-290.50	-172.54	-166.29	-163.29	-161.36	-159.43	-157.50	-155.59	-152.70	-149.81	-146.97
60	-295.26	-175.30	-169.05	-166.05	-164.12	-162.19	-160.26	-158.35	-155.46	-152.57	-149.73
61	-300.02	-178.06	-171.81	-168.81	-166.88	-164.95	-163.02	-161.11	-158.22	-155.33	-152.49
62	-304.78	-180.82	-174.57	-171.57	-169.64	-167.71	-165.78	-163.87	-160.98	-158.09	-155.25
63	-309.54	-183.58	-177.33	-174.33	-172.40	-170.47	-168.54	-166.63	-163.74	-160.85	-158.01
64	-314.30	-186.34	-180.09	-177.09	-175.16	-173.23	-171.30	-169.39	-166.50	-163.61	-160.77
65	-319.06	-189.10	-182.85	-179.85	-177.92	-175.99	-174.06	-172.15	-169.26	-166.37	-163.53
66	-323.82	-191.86	-185.61	-182.61	-180.68	-178.75	-176.82	-174.91	-172.02	-169.13	-166.29
67	-328.58	-194.62	-188.37	-185.37	-183.44	-181.51	-179.58	-177.67	-174.78	-171.89	-169.05
68	-333.34	-197.38	-191.13	-188.13	-186.20	-184.27	-182.34	-180.43	-177.54	-174.65	-171.81
69	-338.10	-200.14	-193.89	-190.89	-188.96	-187.03	-185.10	-183.19	-180.30	-177.41	-174.57
70	-342.86	-202.90	-196.65	-193.65	-191.72	-189.79	-187.86	-185.95	-183.06	-180.17	-177.33

TABLE 7.11. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
60 DEGREE FLIGHT AZIMUTH

NOVEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.51	-8.36	-7.32	-6.12	-4.13	-2.94	2.24	4.30	5.43	6.47	8.62
1	-16.21	-12.69	-10.28	-7.10	-5.75	-4.52	4.72	8.09	9.85	11.66	15.18
2	-17.05	-13.55	-11.85	-10.01	-8.55	-7.45	3.76	7.11	8.35	10.50	14.16
3	-19.00	-15.30	-13.50	-11.67	-10.15	-9.05	2.64	6.13	7.51	9.81	13.46
4	-21.38	-17.49	-15.60	-13.55	-12.35	-11.25	1.73	5.46	7.01	9.40	12.79
5	-24.30	-20.05	-18.06	-15.76	-14.60	-13.58	0.92	4.59	6.25	8.20	11.53
6	-27.84	-23.12	-20.83	-18.74	-17.82	-16.81	0.20	4.72	6.54	8.50	10.82
7	-31.90	-26.59	-24.01	-21.22	-19.13	-18.24	-0.35	4.74	6.54	10.11	15.42
8	-36.81	-30.77	-27.94	-24.65	-22.37	-21.33	-1.02	4.87	6.85	10.39	17.03
9	-40.75	-34.16	-30.95	-27.40	-25.12	-24.28	-1.44	4.90	6.89	11.60	18.23
10	-45.62	-38.25	-34.63	-30.73	-28.74	-27.74	-1.37	5.19	7.37	12.54	20.01
11	-50.76	-42.60	-38.64	-34.24	-32.53	-31.42	-1.30	5.51	8.01	13.76	21.92
12	-52.92	-44.49	-40.44	-35.07	-33.11	-31.75	-1.33	5.58	8.37	13.00	21.35
13	-50.53	-42.73	-38.95	-34.05	-32.36	-31.81	-1.42	5.25	7.33	11.11	18.91
14	-44.72	-38.02	-34.77	-31.24	-29.82	-29.43	-1.43	5.22	7.23	9.25	14.95
15	-37.15	-31.66	-28.01	-25.11	-23.86	-23.72	-1.57	4.57	6.27	6.23	11.72
16	-31.46	-26.73	-24.44	-21.35	-19.43	-19.41	-1.33	4.13	5.62	5.21	10.64
17	-27.01	-22.73	-20.65	-18.40	-16.30	-16.30	-1.56	2.55	4.77	6.85	11.13
18	-20.82	-17.37	-15.79	-13.88	-12.57	-12.57	-1.32	2.93	4.31	5.49	9.37
19	-16.12	-13.28	-11.90	-10.40	-9.08	-9.08	-1.76	3.46	4.98	6.35	8.22
20	-13.45	-10.94	-9.72	-8.33	-7.09	-7.09	-1.47	3.33	5.22	6.42	8.93
21	-11.82	-9.54	-8.47	-7.23	-6.05	-6.05	-1.67	3.80	5.10	6.20	8.48
22	-12.32	-9.83	-8.72	-7.44	-6.11	-6.11	-1.51	2.10	4.42	5.72	6.98
23	-12.65	-10.20	-9.05	-7.68	-6.29	-6.29	-1.59	2.11	4.50	5.80	7.02
24	-14.10	-11.39	-10.07	-8.64	-7.04	-7.04	-2.01	2.02	4.62	5.85	7.36
25	-16.25	-13.23	-11.77	-10.18	-8.29	-8.29	-2.81	1.67	4.56	6.15	7.61
26	-18.05	-14.91	-13.25	-11.54	-9.44	-9.44	-3.63	1.17	4.27	5.38	7.55
27	-20.67	-16.99	-15.21	-13.27	-10.94	-10.94	-4.28	1.18	4.76	6.64	8.42
28	-20.71	-16.60	-14.61	-12.44	-10.51	-10.51	-2.40	3.70	7.43	9.80	11.79
29	-22.85	-18.36	-16.28	-14.01	-11.90	-11.90	-3.53	2.84	6.95	9.22	11.30
30	-23.65	-19.25	-17.12	-14.80	-12.58	-12.58	-4.05	2.49	6.70	9.02	11.15
31	-24.84	-20.44	-18.37	-16.04	-13.91	-13.91	-5.44	1.02	5.19	7.48	9.59
32	-26.37	-22.07	-19.99	-17.72	-15.60	-15.60	-7.22	-0.84	3.28	5.55	7.63
33	-30.32	-25.47	-23.13	-20.57	-18.94	-18.94	-8.75	-1.56	3.08	5.64	7.98
34	-33.20	-28.07	-25.59	-22.89	-21.98	-21.98	-10.37	-2.77	2.14	4.84	7.33
35	-36.23	-30.68	-27.99	-25.07	-23.76	-23.76	-11.52	-3.28	2.03	4.96	7.65
36	-39.63	-33.72	-30.85	-27.74	-26.08	-26.08	-13.30	-4.53	1.13	4.25	7.11
37	-41.75	-35.47	-32.44	-29.13	-27.13	-27.13	-15.82	-4.51	1.49	4.80	7.84
38	-44.11	-37.58	-34.42	-30.97	-29.72	-29.72	-15.03	-5.34	0.91	4.35	7.52
39	-47.54	-40.30	-36.80	-32.99	-31.07	-31.07	-15.33	-4.60	2.32	6.13	9.64
40	-49.07	-41.86	-38.37	-34.57	-32.66	-32.66	-16.96	-6.26	0.64	4.44	7.93
41	-49.95	-42.62	-39.07	-35.21	-33.19	-33.19	-17.31	-6.43	0.58	4.44	7.99
42	-48.03	-41.11	-37.76	-34.12	-32.49	-32.49	-17.23	-6.96	-0.33	3.31	6.66
43	-44.90	-38.60	-35.55	-32.23	-30.21	-30.21	-16.86	-7.52	-1.49	1.83	4.88
44	-42.90	-36.68	-33.68	-30.40	-28.46	-28.46	-15.24	-6.02	-0.07	3.20	6.21
45	-45.19	-38.60	-35.41	-31.94	-29.64	-29.64	-15.86	-6.09	0.22	3.69	6.88
46	-44.68	-38.09	-34.89	-31.42	-29.11	-29.11	-15.32	-5.53	0.79	4.26	7.46
47	-48.29	-41.08	-37.58	-33.78	-31.67	-31.67	-16.16	-5.45	1.46	5.26	8.76
48	-49.04	-41.86	-38.38	-34.59	-32.71	-32.71	-17.05	-6.38	0.50	4.28	7.76
49	-54.13	-45.88	-41.88	-37.53	-35.63	-35.63	-17.38	-5.14	2.76	7.11	11.11
50	-55.90	-47.86	-43.97	-39.73	-37.03	-37.03	-20.09	-8.15	-0.45	3.79	7.68
51	-57.12	-49.19	-45.34	-41.16	-38.57	-38.57	-21.79	-10.02	-2.42	1.76	5.60
52	-57.22	-49.40	-45.61	-41.49	-38.00	-38.00	-22.39	-10.77	-3.29	0.84	4.63
53	-61.30	-52.77	-48.64	-44.15	-41.99	-41.99	-23.33	-10.67	-2.51	1.98	6.11
54	-60.34	-52.09	-48.09	-43.74	-41.55	-41.55	-23.60	-11.36	-3.46	0.89	4.89
55	-57.79	-50.25	-46.59	-42.62	-40.40	-40.40	-24.21	-13.02	-5.80	-1.82	1.83
56	-60.46	-52.60	-48.79	-44.65	-42.13	-42.13	-25.46	-13.79	-6.27	-2.12	1.68
57	-65.19	-56.43	-52.19	-47.58	-44.19	-44.19	-26.20	-13.20	-4.82	-0.20	4.04
58	-61.80	-53.54	-49.58	-45.19	-42.28	-42.28	-25.02	-12.76	-4.85	-0.50	3.50
59	-60.42	-52.15	-48.16	-43.81	-40.91	-40.91	-23.65	-11.40	-3.49	0.86	4.86
60	-70.29	-60.20	-55.31	-49.99	-46.33	-46.33	-25.35	-10.37	-0.71	4.61	9.50
61	-71.19	-60.75	-55.63	-50.19	-46.20	-46.20	-24.70	-9.20	0.79	6.29	11.35
62	-69.64	-59.40	-54.44	-49.05	-45.24	-45.24	-24.05	-8.85	0.96	6.35	11.31
63	-68.09	-58.06	-53.19	-47.90	-43.29	-43.29	-23.39	-8.49	1.12	6.41	11.27
64	-66.55	-56.71	-51.94	-46.76	-42.34	-42.34	-22.74	-8.13	1.28	6.47	11.23
65	-65.21	-55.53	-50.84	-45.73	-41.46	-41.46	-22.09	-7.71	1.56	6.66	11.35
66	-63.57	-54.11	-49.58	-44.54	-40.48	-40.48	-21.43	-7.39	1.67	6.66	11.24
67	-62.02	-52.76	-48.28	-43.39	-39.53	-39.53	-20.78	-7.03	1.84	6.72	11.21
68	-60.48	-51.41	-47.03	-42.25	-38.57	-38.57	-20.12	-6.67	2.00	6.78	11.17
69	-58.93	-50.07	-45.78	-41.10	-37.62	-37.62	-19.47	-6.32	2.17	6.84	11.13
70	-57.38	-48.72	-44.58	-39.96	-36.67	-36.67	-18.81	-5.96	2.33	6.90	11.09

TABLE 7.12. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS

60 DEGREE FLIGHT AZIMUTH

DECEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.26	-3.00	-7.31	-6.71	-4.53	-1.20	2.16	4.32	5.51	6.60	8.86
1	-15.27	-14.35	-12.71	-10.15	-6.74	-1.37	5.59	9.44	11.56	13.71	17.53
2	-13.51	-14.31	-12.97	-10.25	-7.32	-1.63	3.37	7.61	9.62	11.46	15.20
3	-20.63	-16.01	-15.04	-12.94	-8.19	-1.77	2.44	5.26	6.25	10.10	14.08
4	-23.37	-19.13	-17.15	-14.35	-10.32	-4.59	1.57	5.55	7.75	9.79	13.99
5	-27.00	-22.24	-20.21	-17.37	-12.76	-1.61	1.55	6.16	8.70	11.03	15.65
6	-29.29	-25.05	-22.53	-19.75	-14.75	-1.01	1.75	5.75	8.51	11.04	15.26
7	-33.74	-28.01	-25.05	-22.04	-16.70	-0.27	0.23	5.70	8.72	11.49	17.21
8	-36.74	-30.51	-27.04	-24.41	-18.22	-0.45	-0.37	5.50	8.73	11.69	17.82
9	-41.44	-34.76	-31.27	-27.61	-21.02	-1.02	-0.60	5.22	9.61	12.94	19.82
10	-47.05	-39.25	-35.47	-31.33	-23.35	-1.24	-0.94	5.24	10.35	14.75	22.56
11	-51.51	-44.71	-40.45	-34.65	-25.20	-1.53	-1.07	6.00	11.33	15.45	23.84
12	-55.52	-49.74	-44.49	-37.35	-27.43	-1.40	-1.13	7.01	11.64	15.89	24.57
13	-59.12	-54.14	-48.27	-40.67	-29.43	-1.48	-1.24	4.70	9.11	12.97	20.95
14	-43.31	-36.73	-33.27	-30.14	-23.37	-1.15	-0.44	1.73	5.23	8.45	15.00
15	-27.57	-22.22	-19.67	-17.11	-13.37	-1.71	-4.22	1.14	4.13	6.57	12.55
16	-43.40	-35.35	-32.38	-29.22	-21.37	-1.37	-1.77	1.57	4.75	6.82	11.91
17	-23.09	-24.54	-22.24	-19.05	-15.61	-0.85	-2.11	2.04	4.04	6.34	11.38
18	-23.02	-19.93	-17.23	-14.39	-11.35	-0.72	-1.03	2.55	4.55	6.39	12.18
19	-18.46	-15.78	-13.68	-10.21	-7.30	-4.72	-1.14	2.81	4.44	5.92	9.02
20	-18.14	-13.32	-11.07	-8.47	-7.77	-1.53	-0.60	3.75	4.78	6.15	8.97
21	-14.11	-11.62	-9.41	-7.21	-6.71	-1.01	-0.70	3.46	4.40	5.61	8.10
22	-13.22	-11.43	-9.27	-7.02	-5.72	-1.13	-0.55	2.64	3.92	5.05	7.44
23	-15.06	-12.95	-11.64	-10.21	-7.61	-2.56	-4.7	3.00	4.51	5.82	8.54
24	-17.44	-14.47	-12.44	-11.49	-10.12	-3.24	-4.05	3.00	4.55	5.99	8.96
25	-20.21	-16.82	-15.17	-13.26	-10.12	-5.74	-1.15	3.95	6.05	7.77	11.34
26	-23.43	-19.45	-17.54	-15.44	-11.68	-5.96	-4.3	4.00	6.03	8.91	13.22
27	-25.14	-20.43	-18.77	-16.46	-12.35	-5.78	-3.76	4.63	11.31	13.77	18.85
28	-26.40	-21.32	-18.96	-16.18	-11.32	-3.92	-4.88	10.55	13.68	16.55	22.48
29	-30.32	-24.39	-21.52	-18.39	-12.72	-3.25	-6.59	12.94	16.44	19.65	26.29
30	-32.79	-26.16	-22.95	-19.45	-13.10	-3.25	-8.17	15.71	19.86	23.67	31.55
31	-38.60	-30.73	-26.81	-22.76	-15.22	-3.53	-9.89	18.58	23.36	27.75	36.82
32	-43.35	-34.88	-30.49	-25.71	-17.03	-3.57	-10.70	19.76	24.75	29.34	38.60
33	-45.52	-36.05	-31.47	-26.48	-17.41	-3.36	-10.58	19.94	25.10	29.84	39.63
34	-47.52	-37.74	-33.00	-27.84	-18.47	-3.95	-9.59	19.14	24.39	29.22	39.19
35	-49.59	-39.62	-34.80	-29.54	-20.00	-5.20	-9.88	20.07	25.68	30.84	41.49
36	-53.34	-42.69	-37.53	-31.92	-21.73	-5.93	-11.15	22.57	28.86	34.63	46.55
37	-59.62	-47.70	-41.92	-35.64	-24.23	-6.53	-12.41	24.98	31.91	38.27	51.41
38	-65.60	-52.47	-46.10	-39.18	-26.60	-7.10	-14.45	28.22	35.75	42.67	56.95
39	-70.28	-55.99	-49.07	-41.54	-27.87	-6.66	-14.45	28.33	35.98	43.00	57.50
40	-71.65	-57.15	-50.13	-42.48	-28.60	-7.07	-14.45	28.33	35.98	43.00	57.50
41	-70.87	-56.65	-49.77	-42.28	-28.67	-7.58	-13.52	27.12	34.61	41.50	55.71
42	-68.42	-54.73	-48.10	-40.88	-27.77	-7.44	-12.89	26.00	33.22	39.85	53.55
43	-67.87	-54.18	-47.56	-40.35	-27.75	-6.94	-13.36	25.46	33.67	40.30	53.98
44	-65.84	-52.66	-46.28	-39.33	-26.72	-7.16	-12.40	25.02	31.96	38.35	51.52
45	-68.96	-55.11	-48.41	-41.12	-27.87	-7.32	-13.22	26.47	33.77	40.47	54.32
46	-70.02	-56.04	-49.27	-41.90	-28.52	-7.77	-12.99	26.37	33.74	40.51	54.49
47	-68.49	-54.73	-48.06	-40.81	-27.64	-7.21	-13.22	26.39	33.65	40.31	54.08
48	-67.35	-53.66	-47.03	-39.81	-26.70	-6.38	-13.95	27.05	34.27	40.90	54.59
49	-66.57	-52.99	-46.42	-39.26	-26.27	-6.12	-14.03	27.02	34.16	40.75	54.33
50	-65.69	-52.45	-46.03	-39.05	-26.37	-6.71	-12.95	25.62	32.61	39.02	52.26
51	-66.39	-52.96	-46.45	-39.37	-26.50	-6.56	-13.39	26.25	33.33	39.84	53.28
52	-66.74	-53.15	-46.57	-39.41	-26.40	-6.23	-13.93	26.94	34.10	40.68	54.27
53	-66.94	-53.52	-47.02	-39.95	-27.11	-7.20	-12.72	25.56	32.63	39.13	52.54
54	-70.58	-56.56	-49.76	-42.37	-28.94	-8.13	-12.69	26.12	33.51	40.30	54.33
55	-73.17	-58.88	-51.96	-44.42	-30.74	-9.53	-11.68	25.36	32.89	39.81	54.10
56	-75.36	-61.39	-54.34	-46.66	-32.71	-11.09	-10.53	24.48	32.15	39.21	53.78
57	-76.62	-62.22	-55.24	-47.65	-33.86	-12.48	-8.91	22.69	30.29	37.26	51.67
58	-71.36	-57.95	-51.22	-43.89	-30.58	-9.93	-10.71	24.02	31.35	38.08	51.99
59	-76.68	-62.70	-55.94	-48.57	-35.20	-14.46	-6.28	19.65	27.01	33.78	47.75
60	-63.73	-53.24	-48.16	-42.63	-32.59	-17.03	-1.46	8.58	14.11	19.19	29.67
61	-84.34	-69.03	-61.61	-53.53	-38.87	-16.13	-6.60	21.27	29.34	36.76	52.08
62	-78.66	-64.42	-57.53	-50.02	-36.39	-15.25	-5.89	19.52	27.03	33.92	48.17
63	-73.11	-59.92	-53.53	-46.57	-33.94	-14.36	-5.23	17.85	24.81	31.21	44.40
64	-67.48	-55.35	-49.48	-43.09	-31.48	-13.47	-4.53	16.14	22.53	28.41	40.54
65	-62.02	-50.91	-45.54	-39.68	-29.05	-12.57	-3.91	14.54	20.39	25.77	36.87
66	-56.45	-46.40	-41.53	-36.23	-26.61	-11.68	-3.24	12.86	18.16	23.03	33.09
67	-50.94	-41.92	-37.56	-32.80	-24.17	-10.79	-2.59	11.22	15.98	20.34	29.36
68	-45.64	-37.61	-33.72	-29.49	-21.81	-9.90	-2.02	9.70	13.93	17.82	25.84
69	-40.33	-33.30	-29.89	-26.19	-19.45	-9.01	-1.43	8.16	11.87	15.27	22.31
70	-35.19	-29.11	-26.17	-22.96	-17.14	-8.12	-0.90	6.72	9.93	12.87	18.95

TABLE 8.1. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

JANUARY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.07	-6.15	-5.22	-4.21	-2.37	.48	3.33	5.17	6.19	7.12	9.04
1	-17.80	-13.09	-10.81	-8.33	-3.82	7.16	10.15	14.85	17.14	19.42	24.12
2	-13.92	-9.12	-6.80	-4.27	.32	7.44	14.56	19.15	21.67	24.00	29.79
3	-11.39	-6.34	-3.89	-1.22	3.62	11.12	18.62	23.46	26.13	29.57	33.63
4	-10.26	-4.67	-1.97	.93	6.33	14.62	22.92	29.27	31.21	33.92	37.51
5	-9.95	-3.61	-.54	2.80	8.86	18.27	27.68	33.74	37.09	40.16	46.49
6	-8.47	-1.61	1.71	5.33	11.89	22.07	32.24	38.91	42.42	45.74	52.60
7	-8.89	-1.11	2.66	6.76	14.20	25.75	37.30	44.74	48.84	52.61	60.39
8	-8.57	-.08	4.04	8.51	16.65	27.26	41.87	50.00	54.48	58.59	67.09
9	-9.50	-.03	4.50	9.56	18.62	32.67	46.73	55.80	60.79	65.38	74.85
10	-10.25	.22	5.29	10.81	20.83	36.37	51.91	61.94	67.45	72.53	83.00
11	-9.65	1.46	6.84	12.69	23.33	39.82	56.31	66.94	72.40	78.18	89.28
12	-5.61	5.12	10.31	15.97	26.24	47.16	59.09	69.36	74.02	79.21	89.94
13	-1.10	9.44	14.05	19.00	28.21	47.37	56.52	65.65	70.68	75.30	84.82
14	1.76	10.90	14.59	19.14	27.42	40.25	53.08	61.35	65.91	70.10	78.74
15	2.06	9.69	13.38	17.40	24.70	38.02	47.35	54.65	58.67	62.36	69.99
16	1.92	8.44	11.59	15.03	21.27	30.94	40.61	46.35	50.29	53.44	59.36
17	-1.29	4.63	7.48	10.61	16.27	25.05	33.83	39.49	42.81	45.48	51.39
18	-5.84	-.35	2.31	5.20	10.45	19.60	26.75	32.00	34.89	37.55	43.04
19	-9.83	-4.73	-2.25	.44	5.32	12.90	20.49	25.36	28.05	30.53	35.63
20	-11.95	-7.34	-5.11	-2.68	1.73	8.57	15.42	19.83	22.26	24.49	29.10
21	-14.45	-9.83	-7.59	-5.15	-.73	6.13	12.99	17.41	19.85	22.08	26.70
22	-17.94	-12.80	-10.31	-7.61	-2.69	4.93	12.56	17.47	20.19	22.67	27.80
23	-19.68	-14.28	-11.67	-8.82	-3.65	4.36	12.39	17.55	20.39	23.01	28.41
24	-21.98	-16.04	-13.17	-10.04	-4.35	4.46	13.27	18.96	22.09	24.96	30.90
25	-22.84	-16.73	-13.17	-9.65	-3.81	5.55	14.91	20.95	24.28	27.33	33.64
26	-26.59	-19.05	-15.39	-11.41	-4.19	7.01	18.20	25.43	29.40	33.06	40.60
27	-30.63	-21.95	-17.79	-13.27	-5.05	7.69	20.42	28.64	33.16	37.32	45.90
28	-35.67	-24.94	-19.19	-15.12	-5.72	7.75	19.23	26.63	30.70	34.44	42.17
29	-40.04	-27.63	-21.44	-17.44	-6.18	9.18	22.81	31.11	35.84	40.19	49.17
30	-45.08	-30.78	-23.79	-19.79	-6.99	11.62	26.82	36.63	42.03	46.99	57.24
31	-50.03	-34.70	-26.22	-22.22	-7.41	13.40	30.21	41.06	47.02	52.51	63.84
32	-54.62	-38.27	-28.29	-24.78	-7.95	14.38	32.72	44.54	51.05	57.04	69.39
33	-58.67	-42.79	-30.12	-26.85	-8.66	14.79	35.25	48.44	55.70	62.38	76.16
34	-62.64	-46.13	-32.10	-28.45	-9.56	14.99	36.53	50.42	58.07	65.10	79.61
35	-66.52	-49.81	-32.20	-29.91	-10.87	14.46	37.79	52.83	61.11	68.73	84.44
36	-70.74	-53.65	-32.85	-31.37	-12.96	14.92	38.81	54.22	62.70	70.50	86.59
37	-74.55	-57.16	-33.22	-32.58	-14.90	15.43	39.76	55.45	64.09	72.02	88.41
38	-78.84	-60.69	-33.39	-33.39	-16.94	15.52	40.97	57.38	66.42	74.73	91.87
39	-83.30	-64.83	-34.56	-34.56	-19.21	16.14	41.49	57.83	68.63	75.10	92.18
40	-87.53	-68.78	-32.64	-32.64	-21.82	17.03	41.88	57.90	66.73	74.84	91.58
41	-91.41	-72.99	-34.55	-25.36	-24.68	17.18	43.04	59.72	68.90	77.34	94.77
42	-95.81	-76.76	-32.50	-23.51	-27.20	18.11	43.41	59.73	68.72	76.98	94.02
43	-100.00	-80.88	-32.55	-23.50	-29.75	18.46	43.97	60.42	69.48	77.80	94.99
44	-104.95	-84.99	-30.78	-21.83	-32.25	19.54	44.76	61.00	69.94	78.16	95.12
45	-109.55	-88.32	-29.97	-20.89	-34.70	21.18	46.75	63.24	72.32	80.67	97.90
46	-114.60	-91.74	-29.20	-19.91	-37.14	23.12	49.28	66.16	75.45	83.98	101.61
47	-119.60	-95.84	-28.25	-18.89	-39.58	24.46	50.81	67.81	77.16	85.76	103.52
48	-124.38	-99.81	-26.30	-17.04	-42.02	25.86	51.94	68.76	78.02	86.53	104.10
49	-129.30	-103.00	-23.62	-14.50	-44.46	27.74	53.42	69.98	79.10	87.48	104.78
50	-134.35	-106.20	-22.80	-13.65	-46.90	28.74	54.50	71.12	80.27	88.67	106.03
51	-139.40	-109.40	-22.89	-13.66	-49.34	30.10	55.07	71.83	81.05	89.53	107.04
52	-144.47	-112.60	-22.28	-12.87	-51.78	31.72	57.21	74.30	83.71	92.36	110.21
53	-149.40	-115.80	-18.48	-9.28	-54.22	33.35	59.27	75.98	85.18	93.64	111.10
54	-154.40	-119.00	-13.28	-4.41	-56.66	35.71	61.71	77.83	86.71	94.87	111.71
55	-159.40	-122.20	-13.67	-4.69	-59.10	38.09	62.17	78.47	87.44	95.69	112.72
56	-164.40	-125.40	-8.22	-.50	-61.54	40.90	65.45	81.29	90.01	98.03	114.57
57	-169.40	-128.60	-5.19	3.97	-63.98	43.71	72.14	88.77	92.92	100.33	123.70
58	-174.40	-131.80	-7.59	2.29	-66.42	46.02	75.82	93.75	103.62	112.69	131.42
59	-179.40	-135.00	-2.92	6.08	-68.86	47.77	73.12	89.46	98.46	106.73	123.81
60	-184.40	-138.20	-2.85	6.01	-71.30	47.06	72.01	88.10	96.96	105.10	121.91
61	-189.40	-141.40	-4.07	4.66	-73.74	45.09	69.67	85.52	94.24	102.26	118.82
62	-194.40	-144.60	-5.90	2.80	-76.18	43.12	67.63	83.44	92.14	100.14	116.65
63	-199.40	-147.80	-7.56	1.09	-78.62	41.15	65.51	81.21	89.86	97.81	114.22
64	-204.40	-151.00	-9.41	-.78	-81.06	39.18	63.48	79.15	87.78	95.71	112.07
65	-209.40	-154.20	-11.27	-2.66	-83.50	37.23	61.48	77.11	85.72	93.64	109.97
66	-214.40	-157.40	-13.14	-4.55	-85.94	35.26	59.46	75.07	83.66	91.56	107.87
67	-219.40	-160.60	-15.03	-6.45	-88.38	33.29	57.46	73.04	81.62	89.51	105.79
68	-224.40	-163.80	-16.75	-8.22	-90.82	31.32	55.45	70.85	79.38	87.23	103.42
69	-229.40	-167.00	-18.66	-10.13	-93.26	29.36	53.47	68.85	77.37	85.21	101.38
70	-234.40	-170.20	-20.58	-12.05	-95.70	27.39	51.50	66.84	75.36	83.19	99.38

TABLE 8.2. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

FEBRUARY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.20	-7.04	-6.60	-4.86	-2.75	.41	3.62	5.68	6.92	7.87	10.02
1	-17.25	-12.45	-10.12	-7.59	-2.79	4.13	11.25	15.86	18.33	20.72	25.52
2	-14.75	-9.58	-7.07	-4.35	.61	8.29	15.86	20.92	23.64	26.15	31.32
3	-13.00	-7.72	-4.65	-1.63	3.69	12.03	20.37	25.75	28.71	31.43	37.05
4	-12.79	-6.51	-3.47	-1.16	5.85	15.18	24.50	30.51	33.02	36.86	43.14
5	-12.33	-5.75	-2.37	1.42	8.20	18.71	29.22	36.00	39.73	43.16	50.25
6	-12.60	-4.69	-.80	3.31	10.89	22.63	34.38	41.96	46.13	49.96	57.87
7	-13.64	-4.69	-.35	4.37	12.94	26.24	39.57	48.10	52.32	57.15	66.12
8	-15.05	-4.98	-.11	5.20	14.84	29.78	44.72	54.36	59.67	64.54	74.61
9	-17.09	-5.72	-.21	5.79	16.69	33.56	50.45	61.34	67.34	72.85	84.22
10	-17.23	-5.08	.80	7.20	18.87	36.76	54.90	66.53	72.93	78.81	90.96
11	-16.66	-3.36	2.33	9.02	21.33	40.32	59.31	71.56	78.30	84.50	97.24
12	-12.40	.03	6.05	12.60	24.45	47.94	61.34	73.28	79.83	85.85	98.27
13	-8.25	3.26	9.84	14.91	25.93	48.01	60.10	71.12	77.19	82.76	94.27
14	-3.58	5.85	10.67	15.87	25.31	39.95	44.60	54.04	59.24	64.02	72.78
15	-2.31	6.12	10.21	14.65	22.72	35.24	47.75	55.82	60.27	64.35	73.38
16	-2.45	4.93	8.51	12.40	19.47	30.43	41.39	48.45	52.34	55.92	63.30
17	-4.83	1.76	4.95	3.42	14.73	24.51	34.28	40.59	44.06	47.25	53.84
18	-8.70	-2.66	.27	3.45	8.24	18.20	27.17	32.95	36.13	39.06	45.10
19	-12.16	-6.67	-4.02	-1.13	4.12	12.76	20.40	25.65	29.54	31.20	36.68
20	-15.65	-10.55	-8.05	-5.30	-2.50	7.08	14.66	19.55	22.24	24.72	29.82
21	-16.75	-12.11	-9.47	-7.43	-2.99	7.89	10.76	15.20	17.64	19.85	24.52
22	-16.66	-13.96	-11.69	-9.21	-4.71	2.26	9.23	13.73	16.21	18.48	23.15
23	-19.10	-14.45	-12.20	-9.75	-5.30	1.60	8.44	12.94	15.33	17.64	22.29
24	-19.42	-14.67	-12.36	-9.86	-5.30	1.75	8.81	13.36	15.87	18.17	22.93
25	-21.66	-16.40	-13.35	-11.07	-6.03	1.79	9.61	14.65	17.42	19.97	25.24
26	-22.84	-17.18	-14.44	-11.45	-6.07	2.37	10.77	16.19	19.17	21.91	27.57
27	-25.07	-18.78	-15.74	-12.42	-6.40	2.93	12.26	18.23	21.60	24.64	30.93
28	-19.71	-13.60	-10.64	-7.42	-1.56	7.51	16.59	22.44	25.67	28.63	34.74
29	-19.16	-12.71	-9.59	-6.19	-.02	9.54	19.11	25.28	28.67	31.80	38.24
30	-18.95	-11.85	-8.42	-4.68	2.11	12.64	23.16	29.95	33.69	37.13	44.22
31	-17.76	-10.27	-6.64	-2.69	4.49	15.61	26.74	33.91	37.86	41.49	48.99
32	-18.84	-10.50	-6.47	-2.07	5.91	18.28	30.65	38.63	43.02	47.06	55.39
33	-20.42	-11.50	-7.19	-2.49	6.05	19.28	32.51	41.05	45.75	50.06	58.98
34	-20.81	-11.80	-7.44	-2.69	5.94	19.31	32.69	41.31	46.06	50.42	59.43
35	-20.37	-11.42	-7.09	-2.37	6.20	19.48	32.77	41.33	46.05	50.39	59.34
36	-22.18	-12.61	-7.97	-2.93	6.24	20.45	34.66	43.82	48.86	53.50	63.07
37	-23.75	-13.68	-8.81	-3.50	6.13	21.07	36.01	45.65	50.95	55.83	65.90
38	-24.96	-14.38	-9.25	-3.67	6.46	22.17	37.88	48.02	53.60	58.72	69.31
39	-25.37	-14.51	-9.25	-3.52	6.88	23.00	39.13	49.53	55.25	60.51	71.38
40	-27.12	-15.68	-10.14	-4.11	6.84	23.82	40.81	51.76	57.79	63.33	74.77
41	-28.37	-16.23	-10.36	-3.96	7.66	25.67	43.68	55.30	61.69	67.57	79.71
42	-25.36	-13.43	-7.65	-1.36	10.07	27.78	45.50	56.93	63.22	69.00	80.93
43	-24.50	-12.33	-6.43	-.02	11.63	29.69	47.76	59.40	65.82	71.71	83.88
44	-25.23	-12.45	-6.27	.47	12.70	31.66	50.62	62.85	69.58	75.77	88.54
45	-24.45	-11.35	-5.01	1.89	14.43	33.87	53.31	65.85	72.75	79.10	92.19
46	-22.58	-9.48	-3.14	3.77	16.31	35.76	55.21	67.75	74.66	81.00	94.10
47	-21.15	-8.08	-1.75	5.14	17.66	37.06	56.46	68.97	75.86	82.19	95.26
48	-18.06	-5.36	.78	7.47	19.63	38.47	57.31	69.46	76.15	82.30	94.99
49	-16.09	-3.31	2.89	9.62	21.86	40.84	59.81	72.05	78.79	84.98	97.77
50	-15.86	-3.00	3.22	10.00	22.30	41.37	60.45	72.75	79.53	85.75	98.60
51	-14.48	-1.68	4.52	11.26	23.51	42.50	61.50	73.75	80.49	86.69	99.49
52	-13.64	-.51	5.85	12.77	25.34	44.83	64.32	76.89	83.81	90.17	103.30
53	-10.47	2.60	8.93	15.82	28.33	47.73	67.12	79.63	86.52	92.85	105.92
54	-7.00	5.85	12.08	18.86	31.17	50.25	69.34	81.64	88.42	94.65	107.50
55	-3.07	9.46	15.53	22.13	34.12	52.72	71.31	83.31	89.91	95.98	108.51
56	-3.12	9.83	16.10	22.92	35.31	54.53	73.74	86.14	92.96	99.23	112.18
57	-6.44	7.78	14.67	22.17	35.78	56.90	78.01	91.63	99.12	106.01	120.24
58	-1.46	11.59	17.91	24.79	37.28	56.65	76.02	88.52	95.39	101.71	114.76
59	-3.42	10.92	17.86	25.42	39.14	60.41	81.69	95.41	102.97	109.91	124.24
60	-5.31	10.19	17.70	25.87	40.70	63.70	86.71	101.54	109.71	117.21	132.71
61	-9.40	6.57	14.30	22.72	38.01	61.71	85.42	100.70	109.12	116.85	132.62
62	-9.65	5.92	13.47	21.68	36.59	59.71	82.83	97.74	105.95	113.49	129.07
63	-10.19	5.06	12.44	20.48	35.08	57.71	80.35	94.95	102.98	110.37	125.62
64	-10.44	4.41	11.61	19.44	33.66	55.71	77.76	91.98	99.81	107.01	121.86
65	-10.69	3.77	10.78	18.40	32.25	53.72	75.19	89.04	96.66	103.67	118.13
66	-10.95	3.12	9.94	17.36	30.83	51.72	72.61	86.09	93.50	100.32	114.40
67	-11.20	2.48	9.11	16.32	29.41	49.72	70.03	83.12	90.33	96.96	110.64
68	-11.74	1.62	8.08	15.12	27.91	47.73	67.55	80.33	87.37	93.84	107.19
69	-11.99	.97	7.25	14.08	26.48	45.72	64.96	77.37	84.20	90.48	103.44
70	-12.25	.32	6.41	13.04	25.07	43.73	62.39	74.42	81.05	87.13	99.71

TABLE 8.3. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

MARCH

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.30	-7.20	-6.18	-5.08	-3.07	.05	3.16	5.17	6.27	7.29	9.39
1	-16.98	-12.37	-10.14	-7.71	-3.29	3.55	10.39	14.81	17.24	19.47	24.29
2	-13.89	-9.11	-6.80	-4.28	.30	7.40	14.49	19.07	21.50	23.91	28.69
3	-13.45	-8.02	-5.39	-2.54	2.66	10.71	18.76	23.76	26.82	29.44	34.87
4	-13.09	-7.02	-4.08	-1.83	4.93	17.94	22.95	28.76	31.96	34.90	40.98
5	-12.28	-5.57	-2.32	1.21	7.53	17.58	27.54	33.96	37.49	40.74	47.45
6	-10.71	-3.51	-.02	3.78	10.67	21.36	32.06	38.95	42.75	46.24	53.44
7	-10.46	-2.49	1.37	5.57	13.20	25.04	36.87	44.50	48.70	52.56	60.53
8	-10.14	-1.46	2.74	7.32	15.62	28.50	41.38	49.69	54.27	58.47	67.15
9	-10.53	-.94	3.71	9.77	17.95	32.20	46.45	55.64	60.70	65.34	74.94
10	-10.94	-.42	6.67	10.22	20.28	35.89	51.50	61.57	67.11	72.20	82.72
11	-9.59	1.39	6.70	12.48	22.99	39.28	55.57	66.07	71.85	77.17	88.14
12	-5.69	5.07	10.27	15.94	26.24	42.20	58.16	68.45	74.12	79.33	90.08
13	-.33	9.27	13.92	19.98	28.17	42.41	56.66	65.85	70.31	75.56	85.16
14	1.75	10.18	14.27	19.71	26.78	39.30	51.81	59.88	64.33	68.41	76.84
15	2.19	9.48	13.01	15.85	23.83	34.64	45.46	52.43	56.27	59.33	67.09
16	1.35	7.67	10.73	14.06	20.11	29.50	38.88	44.93	48.27	51.33	57.65
17	-1.95	3.85	6.65	9.71	15.25	23.85	32.45	39.00	41.05	43.86	49.65
18	-6.42	-1.09	1.49	4.30	9.40	17.31	25.22	30.72	33.13	35.71	41.04
19	-10.80	-5.95	-3.60	-1.05	3.60	10.79	17.99	22.63	25.19	27.54	32.73
20	-14.01	-9.49	-7.29	-4.91	-.57	6.14	12.86	17.70	19.58	21.78	26.35
21	-15.64	-11.46	-9.44	-7.24	-3.24	2.97	9.17	13.17	15.37	17.39	21.57
22	-17.68	-13.41	-11.34	-8.09	-3.00	1.74	7.68	11.77	14.02	16.09	20.36
23	-18.93	-14.69	-12.64	-10.41	-6.36	-.08	6.20	10.25	12.48	14.53	18.76
24	-20.15	-15.71	-13.56	-11.22	-6.97	-3.38	5.21	10.45	12.79	14.94	19.38
25	-22.19	-17.21	-14.79	-12.16	-7.39	-.01	7.41	12.18	14.81	17.22	22.21
26	-23.76	-17.85	-15.23	-12.38	-7.20	.84	8.87	14.05	16.90	19.52	24.93
27	-25.99	-19.88	-16.92	-13.70	-7.85	1.22	10.29	16.13	19.35	22.31	28.42
28	-28.38	-21.82	-18.42	-15.60	-7.60	3.49	13.45	18.58	21.41	24.00	29.37
29	-30.43	-22.89	-19.76	-16.88	-1.09	7.59	16.25	21.84	24.92	27.74	33.58
30	-32.76	-23.76	-20.10	-18.67	-.44	9.22	18.88	25.10	28.53	31.68	34.19
31	-32.47	-24.94	-21.29	-19.72	-7.32	-.11	11.08	22.26	29.47	33.44	40.62
32	-25.31	-16.83	-12.73	-8.26	-.15	12.42	25.00	33.11	37.58	41.68	50.16
33	-27.87	-18.72	-14.28	-9.46	-.70	12.88	26.47	35.23	40.05	44.48	53.63
34	-29.98	-19.48	-14.87	-9.86	-.75	13.36	27.48	36.58	41.59	46.20	55.71
35	-26.70	-17.75	-13.41	-8.69	-.12	13.18	26.47	35.05	39.77	44.10	53.06
36	-26.00	-17.28	-13.05	-8.45	-.11	12.84	25.79	34.14	38.73	42.96	51.68
37	-24.16	-15.80	-11.75	-7.34	.66	13.08	25.49	33.50	37.91	41.96	50.32
38	-23.88	-14.72	-10.71	-6.34	1.58	13.48	26.17	34.09	38.46	42.47	50.75
39	-22.87	-14.34	-10.21	-5.72	2.44	15.09	27.74	35.90	40.39	44.52	53.05
40	-22.49	-13.79	-9.57	-4.94	3.35	16.27	29.19	37.53	42.12	46.33	55.04
41	-23.48	-14.30	-9.89	-5.09	3.63	17.15	30.66	39.38	44.18	48.59	57.70
42	-23.15	-13.84	-9.33	-4.42	4.50	18.32	32.14	41.06	45.97	50.48	59.79
43	-22.07	-12.70	-8.16	-3.22	5.75	19.66	33.57	42.54	47.48	52.02	61.39
44	-21.52	-11.91	-7.26	-2.20	7.00	21.26	35.52	44.71	49.78	54.43	64.04
45	-19.61	-10.13	-5.58	-.55	8.52	22.58	36.65	45.72	50.71	55.30	64.77
46	-16.50	-7.33	-2.90	1.94	10.71	24.32	37.92	46.70	51.53	55.97	65.14
47	-14.55	-5.46	-1.04	3.76	12.47	25.98	39.49	48.21	53.01	57.41	66.52
48	-12.05	-3.02	1.36	6.12	14.77	28.18	41.59	50.24	55.00	59.38	68.41
49	-9.36	-.46	3.85	8.54	17.06	30.28	43.49	52.01	56.70	61.01	69.91
50	-8.27	.77	5.14	9.50	18.55	31.96	45.37	54.02	58.78	63.16	72.19
51	-5.89	3.02	7.33	12.03	20.56	33.78	47.01	55.54	60.23	64.55	73.46
52	-3.01	5.61	9.79	14.34	22.60	35.40	48.21	56.47	61.02	65.19	73.82
53	-5.51	3.88	8.43	13.38	22.37	36.31	50.25	59.24	64.19	68.74	78.14
54	-4.79	4.62	9.18	14.14	23.15	37.13	51.10	60.11	65.07	69.63	79.04
55	-8.64	1.88	6.98	12.52	22.59	38.21	53.82	63.89	69.44	74.53	85.05
56	-3.81	5.92	10.63	15.75	25.06	39.49	53.93	63.24	68.36	73.07	82.79
57	-.93	8.48	13.03	17.99	26.99	40.96	54.92	63.93	68.88	73.44	82.85
58	-1.63	8.23	13.01	18.20	27.64	42.28	56.91	66.35	71.55	76.33	86.19
59	-.18	9.96	14.84	20.14	29.77	44.71	59.64	69.27	74.58	79.45	89.51
60	-.66	10.09	15.30	20.96	31.25	47.21	63.17	73.46	79.13	84.33	95.08
61	-5.05	5.27	11.75	17.71	28.54	45.33	62.12	72.95	78.92	84.40	95.71
62	-5.78	5.27	10.63	16.45	27.04	43.44	59.85	70.43	76.26	81.61	92.67
63	-6.53	4.27	9.50	15.19	25.53	41.56	57.59	67.92	73.62	78.85	89.64
64	-7.26	3.28	8.38	13.94	24.03	39.67	55.32	65.41	70.96	76.06	86.60
65	-7.99	2.29	7.27	12.69	22.53	37.79	53.05	62.89	68.31	73.29	83.57
66	-8.72	1.30	6.15	11.43	21.03	35.90	50.78	60.37	65.65	70.51	80.53
67	-9.46	.30	5.02	10.18	19.52	34.02	48.51	57.85	63.00	67.73	77.49
68	-10.21	-.70	3.90	8.92	18.02	32.13	46.24	55.35	60.36	64.96	74.47
69	-10.95	-1.70	2.78	7.66	16.51	30.24	43.97	52.83	57.70	62.18	71.43
70	-11.68	-2.69	1.67	6.40	15.01	28.36	41.71	50.31	55.05	59.41	68.48

TABLE 8.4. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

APRIL

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.54	-8.39	-7.33	-6.19	-4.12	-2.91	2.30	4.37	5.51	6.55	8.72
1	-18.60	-14.16	-12.01	-9.67	-5.42	1.17	7.75	12.01	14.35	16.50	20.94
2	-18.52	-13.44	-11.09	-8.51	-3.84	3.39	20.63	15.29	17.86	20.22	25.17
3	-13.22	-13.67	-10.37	-9.04	-2.72	5.53	13.78	19.10	22.01	24.72	30.29
4	-19.56	-13.40	-10.42	-7.17	-1.28	7.86	17.60	22.90	26.15	29.13	35.29
5	-20.45	-13.55	-10.20	-6.56	-0.06	10.31	20.56	27.18	30.32	34.17	41.07
6	-21.33	-13.65	-9.94	-5.85	1.46	12.85	24.25	31.59	35.64	39.36	47.03
7	-22.13	-13.64	-9.59	-5.14	2.95	15.50	28.04	35.13	40.59	44.68	52.13
8	-22.96	-13.71	-9.22	-4.34	4.52	18.26	32.00	40.26	46.74	50.23	59.48
9	-23.96	-13.45	-8.36	-4.93	5.23	20.83	35.42	46.49	52.02	57.11	67.61
10	-24.80	-13.26	-7.67	-4.59	6.46	23.59	40.71	51.76	57.84	63.43	74.97
11	-25.70	-13.23	-7.22	-3.74	8.14	26.57	44.99	56.97	63.41	69.42	81.33
12	-26.65	-14.83	-6.62	-1.86	10.41	29.44	48.47	60.75	67.00	73.71	86.53
13	-27.01	-10.30	-4.99	1.54	13.22	31.33	49.44	61.13	67.56	73.47	85.67
14	-17.51	-7.22	-2.64	3.55	13.82	29.69	45.56	55.79	61.42	66.60	77.29
15	-15.46	-4.56	-1.24	4.45	12.98	26.20	39.42	47.94	52.64	56.45	65.86
16	-12.03	-4.52	-1.88	3.03	10.27	21.43	32.58	39.78	43.74	47.38	54.89
17	-13.67	-6.98	-3.74	-1.21	6.20	16.13	25.05	32.47	35.93	39.23	45.93
18	-15.00	-9.36	-6.62	-3.65	1.75	10.11	18.51	23.91	26.88	29.62	35.26
19	-17.01	-12.54	-10.13	-7.51	-2.55	4.98	12.41	17.27	19.98	22.40	27.47
20	-17.90	-13.54	-11.42	-9.15	-4.95	1.52	7.99	12.16	14.46	16.57	20.93
21	-17.33	-13.62	-11.33	-9.37	-6.32	-0.82	4.69	8.24	10.19	11.99	15.70
22	-17.13	-13.78	-11.16	-10.30	-7.18	-2.20	2.77	5.99	7.75	9.37	12.73
23	-17.65	-14.34	-12.74	-10.93	-7.82	-2.91	2.01	5.17	6.92	8.52	11.83
24	-16.93	-15.35	-13.81	-11.72	-8.29	-2.97	2.34	5.77	7.66	9.40	12.98
25	-20.65	-16.62	-14.67	-12.54	-9.68	-2.70	1.28	7.14	9.26	11.21	15.24
26	-22.89	-16.27	-16.03	-13.60	-9.17	-2.32	4.54	6.96	11.40	13.64	18.26
27	-23.13	-18.31	-15.94	-13.37	-8.69	-1.45	5.80	10.47	13.04	15.41	20.29
28	-23.69	-18.41	-15.85	-13.07	-8.01	-1.18	7.66	12.72	15.50	18.06	23.34
29	-24.31	-18.66	-15.92	-12.94	-7.52	-0.87	9.27	14.68	17.66	20.40	26.06
30	-24.66	-18.64	-15.73	-12.56	-6.80	2.13	11.06	16.82	19.99	22.91	28.92
31	-24.51	-18.27	-15.25	-11.96	-5.99	3.28	12.54	18.52	21.81	24.83	31.07
32	-24.16	-17.99	-14.86	-11.55	-5.55	3.76	13.07	19.08	22.38	25.42	31.69
33	-24.60	-18.11	-14.97	-11.55	-5.34	4.29	13.93	20.14	23.56	26.70	33.19
34	-25.58	-18.77	-15.47	-11.89	-5.37	4.74	14.85	21.37	24.96	28.26	35.07
35	-26.42	-19.40	-16.00	-12.30	-5.59	4.83	15.24	21.96	25.66	29.05	36.07
36	-23.87	-17.38	-14.23	-10.81	-4.59	5.05	14.69	20.91	24.33	27.48	33.97
37	-20.61	-14.91	-12.15	-9.14	-3.68	4.79	13.25	18.71	21.72	24.88	30.19
38	-21.25	-15.38	-12.53	-9.44	-3.81	4.90	13.62	19.24	22.34	25.18	31.06
39	-22.46	-16.39	-13.45	-10.25	-4.45	4.56	13.56	19.37	22.57	25.51	31.57
40	-23.80	-17.31	-14.17	-10.74	-4.53	5.11	14.74	20.96	24.38	27.52	34.01
41	-25.69	-18.64	-15.23	-11.51	-4.77	5.70	16.16	22.91	26.62	30.04	37.09
42	-27.55	-20.20	-16.64	-12.77	-5.73	5.18	16.09	23.13	27.00	30.56	37.91
43	-29.09	-21.34	-17.58	-13.50	-6.08	5.42	16.93	24.34	28.43	32.18	39.93
44	-30.23	-22.10	-18.16	-13.88	-6.10	5.97	18.03	25.81	30.09	34.03	42.16
45	-31.97	-23.30	-19.10	-14.53	-6.23	6.64	19.51	27.81	32.38	36.58	45.25
46	-33.60	-24.20	-19.65	-14.69	-5.70	8.25	22.20	31.20	36.15	40.70	50.10
47	-34.02	-24.31	-19.60	-14.48	-5.19	9.23	23.65	32.94	38.06	42.77	52.48
48	-34.52	-24.54	-19.70	-14.43	-4.87	9.95	24.78	34.34	39.61	44.44	54.43
49	-35.16	-24.94	-19.99	-14.61	-4.82	10.34	25.51	35.29	40.68	45.63	55.85
50	-36.61	-26.01	-20.88	-15.30	-5.16	10.56	26.28	36.42	42.00	47.13	57.73
51	-38.16	-27.12	-21.77	-15.95	-5.38	11.01	27.40	37.97	43.79	49.14	60.19
52	-36.56	-25.85	-20.66	-15.02	-4.77	11.13	27.02	37.27	42.91	48.10	58.81
53	-35.01	-24.52	-19.43	-13.90	-3.85	11.73	27.31	37.36	42.89	47.97	58.47
54	-33.18	-22.75	-17.70	-12.21	-2.22	13.25	28.73	38.71	44.20	49.25	59.68
55	-35.02	-23.85	-18.45	-12.56	-1.87	14.71	31.29	41.98	47.86	53.27	64.44
56	-32.19	-21.39	-16.16	-10.46	-1.12	15.91	31.94	42.28	47.98	53.21	64.01
57	-31.57	-20.76	-15.52	-9.83	-0.52	16.57	32.62	42.97	48.67	53.90	64.71
58	-37.82	-25.34	-19.30	-12.72	-0.78	17.74	36.26	48.20	54.78	60.82	73.30
59	-33.21	-22.19	-16.86	-11.05	-0.51	15.84	32.19	42.73	48.53	53.87	64.88
60	-34.47	-22.93	-17.35	-11.26	-0.22	16.91	34.04	45.09	51.17	56.76	68.30
61	-33.40	-22.22	-16.81	-10.91	-0.21	16.39	32.98	43.69	49.58	54.99	66.18
62	-33.60	-22.49	-17.11	-11.26	-0.62	15.87	32.36	42.99	48.85	54.23	65.33
63	-33.53	-22.56	-17.28	-11.46	-0.95	15.34	31.63	42.14	47.92	53.24	64.21
64	-33.74	-22.83	-17.55	-11.80	-1.37	14.82	31.00	41.44	47.19	52.47	63.37
65	-34.24	-23.35	-18.07	-12.32	-1.89	14.29	30.47	40.90	46.64	51.92	62.82
66	-34.18	-23.41	-18.20	-12.53	-2.22	13.76	29.74	40.04	45.72	50.93	61.70
67	-34.38	-23.69	-18.51	-12.87	-2.64	13.24	29.11	39.35	44.98	50.16	60.86
68	-34.60	-23.98	-18.83	-13.23	-3.06	12.71	28.48	38.65	44.25	49.40	60.02
69	-34.81	-24.25	-19.14	-13.58	-3.48	12.19	27.85	37.96	43.52	48.63	59.19
70	-35.03	-24.55	-19.47	-13.94	-3.91	11.66	27.22	37.26	42.79	47.86	58.35

TABLE 8.5. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS

75 DEGREE FLIGHT AZIMUTH

MAY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.19	-8.22	-7.26	-6.22	-4.33	-1.41	1.52	3.41	4.46	5.40	7.34
1	-16.44	-12.85	-11.11	-9.22	-5.78	-2.45	4.68	8.71	10.21	11.95	15.54
2	-17.18	-13.22	-11.50	-9.71	-5.42	-2.46	5.35	10.14	12.03	14.15	18.11
3	-17.32	-13.11	-11.07	-8.85	-4.82	-1.44	7.62	11.72	13.34	15.98	20.19
4	-17.77	-13.21	-11.01	-8.60	-4.24	-2.53	9.30	13.67	16.07	18.28	22.84
5	-17.61	-12.78	-10.44	-7.89	-3.27	-3.90	11.06	15.69	18.23	20.57	25.40
6	-17.35	-12.73	-10.21	-7.46	-2.47	-5.26	13.00	17.39	20.74	23.26	28.43
7	-20.09	-14.05	-11.12	-7.94	-2.16	-6.81	15.78	21.56	24.74	27.67	33.71
8	-19.87	-13.53	-10.46	-7.12	-1.05	-8.35	17.77	23.84	27.18	30.25	36.59
9	-21.18	-14.21	-10.83	-7.15	-0.48	-9.87	20.22	26.89	30.55	33.94	40.91
10	-24.16	-16.13	-12.24	-8.01	-0.32	-11.60	23.51	31.20	35.43	39.32	47.35
11	-26.20	-17.23	-12.89	-8.16	0.43	-12.74	27.06	35.64	40.37	44.72	53.69
12	-28.06	-18.13	-13.41	-8.21	1.24	-15.43	30.53	39.98	45.13	49.96	59.83
13	-27.50	-17.37	-12.46	-7.13	2.77	-17.60	32.64	42.73	47.07	52.58	62.70
14	-22.42	-13.49	-9.17	-4.47	4.08	-17.32	30.57	39.12	43.32	49.14	57.07
15	-18.15	-10.83	-7.25	-3.44	3.56	-14.41	25.26	32.20	36.11	39.66	46.97
16	-16.21	-10.19	-7.28	-4.11	1.65	-10.53	13.52	25.28	28.45	31.37	37.39
17	-15.55	-10.63	-8.24	-5.05	-0.34	-8.36	13.67	18.78	20.97	23.25	28.28
18	-15.68	-11.62	-9.36	-7.52	-3.64	-7.39	9.41	12.29	14.43	16.39	20.45
19	-15.41	-12.10	-10.49	-8.75	-5.63	-6.67	4.25	7.42	9.16	10.77	14.08
20	-16.26	-13.24	-11.78	-10.19	-7.30	-7.82	1.67	4.56	6.17	7.61	10.63
21	-17.04	-14.21	-12.84	-11.35	-8.65	-6.45	-2.26	2.45	3.94	5.31	8.13
22	-18.10	-15.30	-13.34	-12.46	-9.77	-5.40	-1.44	1.25	2.73	4.09	6.90
23	-18.92	-16.10	-14.73	-13.24	-10.54	-6.34	-2.15	0.55	2.09	3.41	5.23
24	-20.59	-17.50	-16.00	-14.37	-11.41	-6.82	-2.23	0.73	2.37	3.86	5.95
25	-22.03	-18.68	-17.03	-15.25	-12.03	-7.03	-2.67	1.20	2.97	4.41	7.98
26	-23.39	-19.72	-17.94	-16.01	-12.50	-7.06	-1.61	1.89	3.33	5.60	9.27
27	-24.41	-20.45	-18.54	-16.45	-12.67	-6.80	-0.93	2.85	4.94	6.85	10.80
28	-27.16	-22.62	-20.28	-17.83	-13.39	-6.51	0.37	4.81	7.26	9.80	14.14
29	-28.12	-23.18	-20.67	-18.03	-13.23	-5.79	1.66	6.46	9.10	11.83	16.54
30	-28.89	-23.88	-21.92	-19.02	-13.75	-5.58	2.58	7.85	10.75	13.42	18.92
31	-29.28	-23.70	-21.84	-18.14	-12.87	-4.70	3.46	8.73	11.63	14.29	19.79
32	-28.15	-22.68	-20.04	-17.16	-11.92	-3.81	4.30	9.53	12.41	15.06	20.52
33	-27.44	-22.09	-19.50	-16.68	-11.56	-3.62	4.32	9.44	12.26	14.85	20.20
34	-29.22	-23.47	-20.69	-17.66	-12.16	-3.63	4.91	10.41	13.44	16.22	21.97
35	-30.65	-24.73	-21.86	-18.73	-13.06	-4.26	4.54	10.21	13.34	16.21	22.13
36	-32.39	-26.77	-23.76	-20.44	-14.52	-5.29	3.95	9.91	13.19	16.20	22.42
37	-32.66	-26.69	-23.81	-20.66	-14.96	-6.11	2.74	8.45	11.59	14.88	20.44
38	-30.57	-25.14	-22.51	-19.65	-14.45	-6.39	1.67	6.87	9.73	12.36	17.79
39	-31.05	-25.72	-23.18	-20.33	-15.23	-7.32	0.59	5.70	8.51	11.09	16.42
40	-31.43	-26.35	-23.91	-21.24	-16.39	-8.47	-1.35	3.50	6.17	8.62	13.68
41	-33.03	-27.96	-25.51	-22.84	-17.99	-10.47	-2.95	1.90	4.56	7.02	12.08
42	-35.39	-30.45	-27.76	-24.84	-19.53	-11.30	-3.07	2.24	5.17	7.85	13.40
43	-38.21	-32.34	-29.50	-26.40	-20.79	-12.08	-3.37	2.25	5.35	8.19	14.06
44	-35.77	-33.74	-30.82	-27.65	-21.88	-12.93	-3.99	1.78	4.96	7.88	13.90
45	-40.49	-34.41	-31.47	-28.27	-22.46	-13.44	-4.43	1.39	4.59	7.53	13.60
46	-41.99	-35.75	-32.73	-29.44	-23.47	-14.21	-4.94	1.03	4.32	7.34	13.58
47	-43.10	-36.71	-33.61	-30.25	-24.13	-14.64	-5.16	0.96	4.33	7.42	13.81
48	-43.60	-37.30	-34.25	-30.92	-24.69	-15.54	-6.18	-0.15	3.18	6.23	12.53
49	-45.55	-39.13	-36.02	-32.64	-26.49	-16.96	-7.43	-1.28	2.10	5.21	11.63
50	-47.32	-40.75	-37.57	-34.11	-27.82	-18.07	-8.32	-2.04	1.43	4.61	11.18
51	-49.54	-42.45	-39.01	-35.27	-28.47	-17.94	-7.40	-0.61	3.13	6.57	13.67
52	-52.80	-44.97	-41.18	-37.05	-29.56	-17.95	-6.33	1.16	5.29	9.04	16.91
53	-52.20	-44.57	-40.88	-36.87	-29.57	-18.26	-6.95	0.35	4.37	8.06	15.68
54	-51.81	-44.22	-40.54	-36.54	-29.27	-18.00	-6.74	0.53	4.53	8.21	15.80
55	-53.26	-45.39	-41.57	-37.43	-29.89	-18.21	-6.53	1.00	5.15	8.86	16.83
56	-55.80	-47.38	-43.30	-38.86	-30.80	-18.30	-5.80	2.26	6.70	10.77	19.19
57	-56.73	-48.00	-43.77	-39.17	-30.81	-17.85	-4.90	3.46	8.06	12.29	21.02
58	-57.98	-50.07	-45.79	-40.05	-35.61	-19.42	-3.24	7.20	12.94	18.22	29.13
59	-62.52	-52.58	-47.77	-42.53	-33.02	-18.26	-3.51	6.00	11.24	16.06	26.00
60	-75.77	-63.52	-57.10	-50.11	-37.43	-17.76	-1.92	14.60	21.59	28.01	41.26
61	-71.11	-59.01	-53.15	-46.77	-35.19	-17.24	-0.72	12.30	18.68	24.53	36.63
62	-67.62	-55.18	-50.65	-44.62	-33.68	-16.71	-0.26	11.20	17.23	22.77	34.20
63	-64.15	-53.38	-48.17	-42.49	-32.18	-16.19	-0.21	10.10	15.78	21.00	31.77
64	-60.39	-50.35	-45.46	-40.19	-30.58	-15.67	-0.77	8.84	14.13	19.00	29.04
65	-56.92	-47.64	-43.00	-38.06	-29.08	-15.16	-1.24	7.74	12.69	17.23	26.61
66	-53.43	-44.72	-40.50	-35.90	-27.56	-14.63	-1.69	6.65	11.24	15.46	24.17
67	-49.67	-41.68	-37.81	-33.61	-25.96	-14.11	-2.26	5.39	9.59	13.69	21.45
68	-46.20	-38.88	-35.33	-31.47	-24.46	-13.59	-2.73	4.28	8.14	11.69	19.01
69	-42.44	-35.84	-32.65	-29.17	-22.86	-13.07	-3.27	3.04	6.52	9.71	16.31
70	-38.96	-33.03	-30.16	-27.03	-21.35	-12.55	-3.74	1.94	5.06	7.93	13.87

TABLE 8.6. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

JUNE

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.33	-7.04	-5.17	-3.21	-1.43	-.91	1.87	3.60	4.55	5.43	7.27
1	-14.72	-11.20	-6.50	-2.70	-1.45	-.69	5.82	9.13	10.86	12.63	16.09
2	-13.61	-10.12	-5.50	-2.70	-1.44	-.64	5.72	9.09	11.00	13.45	15.83
3	-12.60	-9.28	-5.00	-2.64	-1.77	-.64	7.05	10.70	11.37	13.57	16.58
4	-12.00	-8.25	-7.51	-3.31	-1.57	-.50	7.55	10.90	12.60	14.24	17.60
5	-12.00	-8.51	-7.01	-3.00	-1.50	-.65	7.88	11.25	13.10	14.81	19.37
6	-14.00	-10.50	-3.04	-1.51	-1.32	-.30	8.51	12.20	14.23	16.15	19.95
7	-16.11	-11.75	-3.67	-1.30	-1.16	-.32	9.80	12.97	16.27	18.39	22.75
8	-13.03	-13.15	-10.72	-3.22	-1.35	-.33	10.92	15.59	19.16	20.52	25.37
9	-26.97	-15.10	-10.47	-1.44	-1.00	-.44	12.80	18.32	21.31	24.01	29.75
10	-24.50	-17.75	-14.74	-11.24	-4.35	4.37	14.83	21.13	24.03	27.92	34.54
11	-28.45	-20.81	-17.10	-13.08	-5.76	5.59	16.93	24.25	26.28	31.20	39.53
12	-32.60	-23.91	-19.55	-15.02	-6.81	5.44	19.43	27.23	32.52	36.73	45.57
13	-34.55	-26.24	-20.77	-16.80	-6.81	5.90	20.72	29.63	34.54	39.15	48.26
14	-32.32	-23.73	-19.55	-17.17	-7.01	5.50	19.31	28.47	33.27	38.10	43.62
15	-27.51	-20.05	-17.30	-18.71	-7.14	5.05	13.24	19.81	23.43	26.75	32.62
16	-22.94	-17.02	-14.61	-11.97	-7.17	4.26	7.63	12.48	15.12	17.55	22.55
17	-18.65	-14.90	-10.10	-11.02	-7.70	3.22	3.22	6.70	8.74	10.52	14.22
18	-17.33	-14.21	-13.40	-11.74	-9.14	-4.73	-.45	2.35	3.90	5.32	8.24
19	-16.23	-14.67	-14.47	-10.60	-10.62	-6.33	-3.07	-.57	.78	2.02	4.58
20	-20.23	-17.75	-15.72	-10.91	-10.51	-3.02	-4.73	-2.22	-.34	.42	3.04
21	-21.15	-18.05	-17.55	-10.66	-10.66	-3.86	-6.13	-3.71	-2.58	-1.28	1.28
22	-21.33	-19.70	-18.35	-17.00	-14.73	-11.14	-7.54	-5.22	-3.94	-2.77	-.35
23	-23.40	-20.90	-18.77	-18.40	-15.97	-12.22	-8.46	-6.04	-4.70	-3.46	-.94
24	-25.02	-22.30	-20.10	-19.50	-16.36	-12.33	-8.30	-6.30	-4.37	-3.55	-.84
25	-26.72	-23.75	-20.77	-20.80	-16.61	-12.65	-9.29	-6.48	-4.94	-3.51	-.58
26	-27.78	-24.50	-21.10	-21.50	-16.50	-14.00	-9.41	-6.44	-4.81	-3.31	-.22
27	-29.32	-26.94	-24.21	-22.50	-16.20	-14.20	-9.29	-6.06	-4.29	-2.65	.75
28	-31.41	-27.59	-25.74	-23.73	-20.08	-14.41	-8.74	-5.08	-3.08	-1.23	2.59
29	-30.54	-26.92	-25.16	-23.25	-19.78	-14.40	-9.03	-5.56	-3.65	-1.89	1.73
30	-30.57	-26.96	-25.20	-23.30	-19.83	-14.46	-9.09	-5.63	-3.72	-1.97	1.65
31	-32.33	-28.36	-26.44	-24.35	-20.55	-14.66	-8.78	-4.98	-2.89	-.97	3.00
32	-32.94	-28.81	-26.80	-24.62	-20.66	-14.52	-8.37	-4.41	-2.23	-.23	3.31
33	-34.22	-29.89	-27.80	-25.52	-21.38	-14.95	-8.53	-4.39	-2.11	-.01	4.31
34	-38.39	-33.37	-30.94	-28.30	-23.49	-16.04	-8.59	-3.79	-1.14	1.29	6.31
35	-38.21	-33.42	-31.11	-28.59	-24.01	-16.90	-9.80	-5.22	-2.70	-.38	4.40
36	-38.07	-33.67	-31.55	-29.23	-25.02	-18.50	-11.97	-7.76	-5.44	-3.32	1.58
37	-39.08	-34.80	-32.73	-30.48	-26.38	-20.03	-13.69	-9.59	-7.34	-5.27	-.99
38	-40.50	-36.14	-34.02	-31.73	-27.55	-21.08	-14.61	-10.44	-8.14	-6.03	-1.67
39	-42.78	-38.27	-33.71	-29.40	-22.70	-16.01	-11.69	-9.32	-7.13	-4.62	-2.62
40	-43.60	-39.28	-37.19	-34.91	-30.77	-24.35	-17.94	-13.80	-11.52	-9.43	-5.10
41	-47.32	-42.61	-40.32	-37.84	-33.33	-26.34	-19.35	-14.84	-12.36	-10.08	-5.37
42	-48.35	-43.77	-41.55	-39.13	-34.74	-27.94	-21.13	-16.74	-14.33	-12.11	-7.52
43	-49.79	-45.34	-43.18	-40.84	-36.58	-29.98	-23.37	-19.12	-16.77	-14.62	-10.17
44	-50.73	-46.42	-44.34	-42.07	-37.95	-31.56	-25.17	-21.05	-18.78	-16.70	-12.40
45	-52.33	-47.85	-45.68	-43.32	-39.03	-32.38	-25.73	-21.45	-19.09	-16.92	-12.44
46	-54.77	-49.98	-47.66	-45.14	-40.55	-33.44	-26.33	-21.75	-19.22	-16.90	-12.11
47	-56.49	-53.14	-50.54	-47.72	-42.59	-34.64	-26.69	-21.57	-18.74	-16.15	-10.79
48	-59.37	-54.11	-51.56	-48.79	-43.76	-35.96	-28.16	-23.13	-20.36	-17.81	-12.56
49	-64.05	-57.99	-55.06	-51.86	-46.06	-37.06	-28.07	-22.26	-19.07	-16.13	-10.07
50	-62.36	-56.44	-53.57	-50.45	-44.78	-36.00	-27.21	-21.55	-18.43	-15.56	-9.64
51	-66.70	-59.91	-56.62	-53.05	-46.55	-36.47	-26.40	-19.90	-16.32	-13.04	-6.25
52	-66.40	-59.88	-56.72	-53.28	-47.03	-37.34	-27.66	-21.41	-17.97	-14.91	-8.29
53	-69.38	-62.42	-59.05	-55.38	-48.72	-38.38	-28.05	-21.38	-17.71	-14.34	-7.38
54	-68.19	-61.71	-58.58	-55.16	-48.96	-39.35	-29.74	-23.55	-20.13	-17.00	-10.52
55	-70.82	-63.95	-60.62	-57.00	-50.42	-40.21	-30.01	-23.43	-19.81	-16.48	-9.61
56	-69.33	-62.98	-59.91	-56.56	-50.48	-41.05	-31.63	-25.55	-22.20	-19.12	-12.77
57	-74.48	-66.48	-62.61	-58.39	-50.73	-48.85	-36.98	-19.32	-15.10	-11.23	-3.23
58	-84.59	-74.48	-69.59	-64.26	-54.59	-39.59	-24.59	-14.32	-9.59	-4.70	5.41
59	-84.16	-74.28	-69.50	-64.29	-54.83	-40.16	-25.50	-16.04	-10.83	-6.05	3.63
60	-87.86	-77.67	-72.73	-67.35	-57.59	-42.46	-27.32	-17.56	-12.19	-7.25	2.94
61	-80.96	-71.91	-67.52	-62.75	-54.08	-40.64	-27.20	-18.53	-13.75	-9.37	-.31
62	-76.75	-68.23	-64.10	-59.61	-51.46	-38.81	-26.16	-18.00	-13.51	-9.38	-.86
63	-72.53	-64.55	-60.68	-56.48	-48.83	-36.98	-25.14	-17.49	-13.29	-9.42	-1.44
64	-68.33	-60.88	-57.28	-53.35	-46.22	-35.16	-24.11	-16.98	-13.05	-9.45	-2.09
65	-64.13	-57.21	-53.87	-50.22	-43.60	-33.34	-23.08	-16.46	-12.82	-9.47	-2.55
66	-59.91	-53.54	-50.45	-47.08	-40.98	-31.51	-22.04	-15.93	-12.57	-9.48	-3.10
67	-55.71	-49.87	-47.04	-43.96	-38.36	-29.69	-21.01	-15.42	-12.34	-9.51	-3.66
68	-51.50	-46.19	-43.62	-40.82	-35.74	-27.87	-19.99	-14.91	-12.11	-9.54	-4.23
69	-47.29	-42.51	-40.20	-37.69	-33.12	-26.03	-18.95	-14.38	-11.87	-9.56	-4.78
70	-43.08	-38.85	-36.79	-34.56	-30.50	-24.21	-17.92	-13.86	-11.63	-9.58	-5.34

TABLE 8.7. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

JULY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.13	-5.57	-4.81	-3.99	-2.50	-1.19	2.12	3.61	4.43	5.19	6.75
1	-11.50	-8.61	-7.17	-5.61	-2.77	1.64	6.05	8.89	10.46	11.30	14.87
2	-11.74	-8.69	-7.21	-5.60	-2.68	1.85	6.38	9.30	10.70	12.38	15.43
3	-11.76	-8.68	-7.19	-5.57	-2.62	1.96	6.53	9.48	11.10	12.59	15.68
4	-12.23	-9.06	-7.53	-5.86	-2.92	1.88	6.58	9.61	11.23	12.81	15.39
5	-12.67	-9.48	-7.93	-6.25	-3.19	1.54	6.28	9.33	11.01	12.56	15.75
6	-13.39	-10.14	-8.57	-6.86	-3.75	1.08	5.90	9.01	10.72	12.29	15.54
7	-14.51	-11.16	-9.54	-7.77	-4.56	.41	5.39	8.60	10.36	11.90	15.34
8	-16.69	-12.97	-11.17	-9.20	-5.64	-.12	5.40	8.96	10.93	12.73	16.45
9	-20.63	-16.18	-14.03	-11.69	-7.43	-.84	5.76	10.02	12.36	14.51	18.95
10	-24.19	-19.07	-16.60	-13.30	-9.00	-1.40	6.20	11.10	13.80	16.27	21.39
11	-28.31	-22.42	-19.56	-16.45	-10.81	-2.06	6.69	12.34	15.44	18.30	24.20
12	-32.33	-25.74	-22.55	-19.08	-12.77	-2.00	7.73	13.09	16.56	19.75	26.33
13	-35.11	-28.16	-24.79	-21.13	-14.47	-4.15	6.17	12.82	16.49	19.95	26.81
14	-31.97	-25.90	-22.96	-19.76	-13.96	-4.95	4.06	9.87	13.07	16.01	22.08
15	-25.96	-21.40	-19.18	-16.78	-12.40	-7.62	1.15	5.53	7.93	10.15	14.71
16	-20.84	-17.48	-15.86	-14.03	-10.88	-5.90	-.92	2.29	4.36	5.68	9.03
17	-17.99	-15.46	-14.23	-12.90	-10.48	-6.73	-2.98	-.56	.77	2.00	4.57
18	-17.40	-15.38	-14.40	-13.33	-11.39	-8.39	-5.33	-3.46	-2.39	-1.41	.61
19	-19.40	-17.39	-16.42	-15.37	-13.45	-10.48	-7.51	-5.59	-4.54	-3.57	-1.57
20	-23.36	-20.98	-19.83	-19.54	-16.31	-12.78	-9.25	-6.98	-5.72	-4.57	-2.20
21	-24.79	-22.50	-21.39	-20.18	-17.99	-14.59	-11.20	-9.00	-7.80	-6.64	-4.40
22	-25.56	-23.40	-22.35	-21.22	-19.15	-15.95	-12.74	-10.67	-9.54	-8.49	-6.33
23	-27.18	-24.89	-23.78	-22.58	-20.39	-17.00	-13.61	-11.42	-10.22	-9.11	-6.82
24	-28.53	-26.18	-25.04	-23.80	-21.55	-18.07	-14.58	-12.33	-11.03	-9.95	-7.67
25	-30.50	-27.89	-26.63	-25.26	-22.76	-18.89	-15.02	-12.92	-11.15	-9.88	-7.28
26	-32.46	-29.55	-28.13	-26.60	-23.80	-19.47	-15.14	-12.34	-10.31	-9.39	-6.44
27	-34.13	-30.93	-29.37	-27.68	-24.62	-19.86	-15.10	-12.03	-10.34	-9.79	-5.58
28	-33.06	-30.22	-28.84	-27.34	-24.62	-20.39	-16.17	-13.45	-11.95	-10.57	-7.72
29	-34.16	-31.28	-29.84	-28.32	-25.54	-21.24	-16.94	-14.17	-12.64	-11.24	-8.34
30	-34.98	-32.02	-30.59	-29.03	-26.20	-21.81	-17.42	-14.59	-13.03	-11.60	-8.64
31	-34.17	-32.84	-31.41	-29.73	-26.66	-21.90	-17.15	-14.08	-12.40	-10.85	-7.64
32	-36.90	-33.60	-32.00	-30.27	-27.11	-22.21	-17.32	-14.16	-12.42	-10.83	-7.53
33	-37.40	-34.12	-32.48	-30.71	-27.49	-22.49	-17.49	-14.27	-12.50	-10.87	-7.60
34	-39.21	-35.67	-33.95	-32.08	-28.70	-23.44	-18.18	-14.80	-12.93	-11.21	-7.67
35	-42.18	-38.37	-36.52	-34.52	-30.87	-25.22	-19.67	-15.92	-13.91	-12.07	-8.26
36	-42.09	-38.57	-36.86	-35.00	-31.63	-26.39	-21.16	-17.79	-15.93	-14.22	-10.70
37	-43.35	-39.83	-38.22	-36.40	-33.09	-27.97	-22.44	-19.54	-17.72	-16.04	-12.59
38	-53.06	-47.69	-45.09	-42.26	-37.13	-29.16	-21.19	-16.06	-13.23	-10.63	-5.26
39	-48.72	-44.66	-42.69	-40.55	-36.66	-30.63	-24.60	-20.71	-18.57	-16.60	-12.54
40	-51.59	-47.37	-45.33	-43.10	-39.06	-32.80	-26.53	-22.49	-20.26	-18.22	-14.00
41	-52.59	-48.49	-46.50	-44.33	-40.40	-34.31	-28.22	-24.29	-22.12	-20.14	-16.03
42	-55.58	-51.20	-49.08	-46.78	-42.59	-36.10	-29.61	-25.42	-23.11	-21.00	-16.62
43	-58.16	-53.78	-51.66	-49.35	-45.16	-38.66	-32.16	-27.97	-25.66	-23.54	-19.16
44	-61.15	-56.55	-54.32	-51.89	-47.49	-40.66	-33.83	-29.43	-27.00	-24.77	-20.17
45	-62.91	-58.22	-55.94	-53.46	-48.96	-41.99	-35.01	-30.51	-28.03	-25.76	-21.06
46	-65.48	-60.53	-58.13	-55.53	-50.79	-43.45	-36.11	-31.37	-28.76	-26.37	-21.42
47	-68.74	-63.31	-60.69	-57.83	-52.64	-44.59	-36.54	-31.35	-28.49	-25.67	-20.44
48	-68.15	-62.92	-60.39	-57.63	-52.63	-44.87	-37.11	-32.10	-29.35	-26.82	-21.59
49	-67.44	-62.54	-60.16	-57.58	-52.88	-45.60	-38.32	-33.63	-31.04	-28.66	-23.76
50	-69.81	-64.45	-61.86	-59.04	-53.91	-45.96	-38.01	-32.89	-30.06	-27.47	-22.11
51	-73.21	-67.17	-64.28	-61.06	-55.28	-46.31	-37.35	-31.57	-28.38	-25.46	-19.42
52	-76.29	-69.57	-66.32	-62.74	-56.35	-46.39	-36.42	-29.99	-26.45	-23.20	-16.49
53	-79.16	-71.69	-68.07	-64.13	-58.98	-45.89	-34.80	-27.65	-23.72	-20.10	-12.63
54	-77.87	-70.69	-67.22	-63.43	-56.56	-45.91	-35.25	-28.38	-24.60	-21.12	-13.95
55	-80.20	-72.81	-68.64	-64.54	-57.09	-45.54	-33.99	-26.54	-22.44	-18.67	-10.88
56	-81.87	-73.82	-69.33	-64.87	-56.79	-44.25	-31.70	-23.62	-19.16	-15.07	-6.62
57	-83.71	-75.07	-70.88	-66.32	-58.04	-45.20	-32.37	-24.09	-19.53	-15.34	-6.69
58	-85.37	-76.18	-71.73	-66.89	-58.89	-44.45	-30.81	-22.01	-17.16	-12.71	-3.52
59	-86.78	-76.98	-72.24	-67.08	-57.70	-43.17	-28.63	-19.26	-14.09	-9.35	.44
60	-93.46	-82.52	-77.22	-71.46	-60.99	-44.75	-28.52	-18.05	-12.28	-6.99	3.95
61	-90.56	-79.91	-74.71	-69.05	-58.76	-42.81	-26.87	-16.58	-10.92	-5.71	5.03
62	-85.21	-75.25	-70.43	-65.18	-55.65	-40.87	-26.09	-16.55	-11.30	-6.48	3.48
63	-80.05	-70.82	-66.34	-61.48	-52.64	-38.93	-25.22	-16.38	-11.51	-7.04	2.20
64	-74.61	-66.16	-62.06	-57.61	-49.52	-36.98	-24.44	-16.35	-11.89	-7.80	.65
65	-69.19	-61.52	-57.00	-53.76	-46.42	-35.04	-23.66	-16.32	-12.27	-8.56	-.89
66	-63.75	-56.86	-53.53	-49.90	-43.31	-33.09	-22.87	-16.28	-12.66	-9.32	-2.44
67	-58.32	-52.22	-49.26	-46.05	-40.21	-31.15	-22.10	-16.26	-13.04	-10.09	-3.99
68	-53.18	-47.80	-45.19	-42.35	-37.20	-29.20	-21.21	-16.06	-13.22	-10.61	-5.22
69	-47.78	-43.15	-40.92	-38.50	-34.09	-27.26	-20.44	-15.03	-13.61	-11.38	-6.78
70	-42.33	-38.51	-36.66	-34.65	-30.99	-25.32	-19.64	-15.99	-13.97	-12.12	-8.30

TABLE 8.8. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH
AUGUST

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.05	-5.56	-4.83	-4.04	-2.60	-1.38	1.85	3.28	4.07	4.80	6.29
1	-12.76	-9.74	-8.23	-6.69	-3.90	-1.67	5.15	9.04	9.63	11.09	14.10
2	-12.61	-9.56	-8.06	-6.47	-3.55	-1.98	5.51	8.43	10.04	11.52	14.57
3	-12.88	-9.73	-8.20	-6.54	-3.52	-1.16	5.94	9.85	10.51	12.04	15.19
4	-13.21	-9.95	-8.38	-6.66	-3.58	1.50	6.13	9.25	10.97	12.55	15.81
5	-14.19	-10.72	-9.03	-7.20	-3.89	1.28	6.44	9.77	11.60	13.28	16.76
6	-15.14	-11.55	-9.62	-7.93	-4.49	-0.83	6.16	9.59	11.48	13.22	16.81
7	-15.81	-12.17	-10.40	-8.43	-4.99	-0.43	5.94	9.34	11.26	13.03	16.67
8	-16.37	-13.17	-11.32	-9.31	-5.67	-0.02	5.63	9.28	11.29	13.13	16.94
9	-19.05	-14.45	-12.92	-10.60	-6.59	-0.36	5.87	9.83	12.10	14.13	18.33
10	-22.65	-17.69	-15.26	-12.67	-7.92	-0.55	6.81	11.56	14.18	16.58	21.55
11	-26.83	-20.68	-17.90	-14.97	-9.36	-0.83	7.71	13.21	16.24	19.03	24.78
12	-29.62	-23.40	-20.27	-16.91	-10.76	-1.22	8.31	14.46	17.84	20.95	27.38
13	-30.34	-24.34	-21.15	-17.67	-11.35	-1.56	8.33	14.55	18.02	21.22	27.82
14	-28.45	-22.57	-19.72	-16.63	-11.00	-2.27	6.45	12.08	15.18	18.03	23.91
15	-22.77	-13.33	-16.13	-13.94	-9.53	-2.99	3.60	7.85	10.19	12.34	16.79
16	-18.39	-15.15	-13.58	-11.87	-8.78	-3.95	1.86	3.97	7.25	10.49	16.49
17	-17.19	-14.61	-13.37	-12.01	-9.55	-5.73	-1.91	1.55	1.31	3.16	5.73
18	-17.22	-15.11	-14.08	-12.96	-10.94	-7.79	-4.65	-2.62	-1.51	-0.48	1.64
19	-20.34	-17.84	-16.78	-15.62	-13.51	-10.24	-6.97	-4.96	-3.70	-2.63	-0.43
20	-23.08	-20.73	-19.60	-18.36	-16.11	-12.63	-9.15	-6.90	-5.66	-4.53	-2.18
21	-24.52	-22.23	-21.13	-19.32	-17.74	-14.75	-10.96	-9.77	-7.56	-6.46	-4.17
22	-25.45	-23.26	-22.22	-21.08	-19.00	-15.77	-12.55	-10.46	-9.32	-8.27	-6.09
23	-26.39	-24.68	-23.56	-22.35	-20.14	-16.71	-13.29	-11.08	-9.86	-8.74	-6.44
24	-26.64	-24.16	-24.97	-23.66	-21.22	-17.62	-13.95	-11.58	-10.28	-9.08	-6.61
25	-23.94	-27.38	-26.14	-24.80	-22.35	-19.55	-14.75	-12.30	-10.95	-9.72	-7.16
26	-31.37	-28.62	-27.28	-25.83	-23.19	-19.10	-15.00	-12.36	-10.91	-9.58	-6.82
27	-32.93	-30.00	-28.59	-27.03	-24.23	-19.88	-15.54	-12.73	-11.19	-9.77	-6.84
28	-31.79	-29.16	-27.88	-26.49	-23.97	-20.67	-16.16	-13.64	-12.25	-10.98	-8.34
29	-32.62	-30.03	-28.77	-27.41	-24.93	-21.08	-17.23	-14.75	-13.39	-12.13	-9.54
30	-33.68	-30.92	-29.58	-28.12	-25.47	-21.37	-17.27	-14.62	-13.16	-11.82	-9.06
31	-35.24	-32.20	-30.73	-29.13	-26.22	-21.71	-17.20	-14.29	-12.69	-11.22	-9.18
32	-35.87	-32.62	-31.05	-29.34	-26.24	-21.43	-16.61	-13.51	-11.80	-10.23	-8.99
33	-36.19	-32.87	-31.26	-29.52	-26.34	-21.82	-16.50	-13.32	-11.57	-9.97	-8.65
34	-37.65	-34.10	-32.37	-30.50	-27.10	-21.82	-16.54	-13.14	-11.27	-9.55	-8.29
35	-41.37	-37.21	-35.19	-32.99	-29.01	-22.82	-16.64	-12.65	-10.45	-8.44	-6.27
36	-44.28	-40.11	-37.75	-35.18	-30.52	-23.29	-16.06	-11.40	-8.83	-6.47	-4.62
37	-46.20	-41.28	-38.90	-36.31	-31.61	-24.32	-17.02	-12.32	-9.73	-7.35	-5.43
38	-47.77	-42.59	-40.09	-37.36	-32.43	-25.16	-17.59	-12.70	-10.01	-7.54	-5.44
39	-47.87	-42.77	-40.30	-37.61	-32.73	-26.41	-18.35	-13.15	-10.29	-7.66	-5.23
40	-50.58	-45.16	-42.52	-39.66	-34.47	-27.84	-20.45	-15.69	-13.07	-10.66	-5.69
41	-49.99	-45.02	-42.61	-39.98	-35.22	-27.84	-20.18	-14.60	-11.52	-8.70	-5.67
42	-54.78	-48.95	-46.18	-43.06	-37.44	-28.83	-20.18	-14.60	-11.52	-8.70	-5.67
43	-57.72	-51.65	-48.71	-45.52	-39.71	-30.71	-21.71	-15.90	-12.70	-9.77	-3.70
44	-63.39	-56.18	-52.68	-48.87	-41.96	-31.25	-20.53	-13.62	-9.81	-6.32	1.90
45	-63.49	-56.52	-53.14	-49.46	-42.78	-32.43	-22.07	-15.39	-11.72	-8.34	-1.36
46	-64.18	-57.06	-53.61	-49.86	-43.04	-32.47	-21.90	-15.09	-11.33	-7.88	-0.76
47	-64.46	-57.30	-53.83	-50.06	-43.20	-32.58	-21.95	-15.10	-11.32	-7.86	-0.70
48	-63.21	-56.27	-52.91	-49.25	-42.61	-32.31	-22.00	-15.36	-11.70	-8.34	-1.40
49	-62.85	-55.84	-52.45	-49.75	-42.04	-31.64	-21.24	-14.53	-10.84	-7.44	-0.44
50	-64.09	-56.73	-53.17	-49.29	-42.24	-31.31	-20.39	-13.34	-9.46	-5.89	1.47
51	-66.93	-58.90	-55.01	-50.77	-43.09	-31.16	-19.24	-11.55	-7.32	-3.43	4.61
52	-67.97	-59.56	-55.48	-51.04	-42.99	-30.50	-18.01	-9.95	-5.52	-1.44	6.97
53	-68.86	-59.82	-55.44	-50.68	-42.02	-28.60	-15.19	-6.53	-1.77	2.61	11.65
54	-74.77	-64.06	-58.88	-53.23	-42.98	-27.08	-11.18	-4.93	4.71	9.90	20.61
55	-74.61	-63.54	-58.18	-52.35	-41.76	-25.33	-8.91	1.68	7.52	12.88	23.94
56	-75.97	-63.94	-58.11	-51.77	-40.25	-22.39	-4.52	7.00	13.34	19.17	31.20
57	-75.28	-63.11	-57.21	-50.79	-39.13	-21.05	-2.97	8.69	15.11	21.00	33.18
58	-77.91	-64.72	-58.34	-51.39	-38.76	-19.19	0.39	13.01	19.96	26.35	39.53
59	-76.42	-62.07	-55.12	-47.55	-33.81	-12.51	8.79	22.53	30.10	37.05	51.40
60	-73.70	-60.00	-53.36	-46.14	-33.02	-12.69	7.65	20.77	27.99	34.62	48.32
61	-69.67	-56.79	-50.55	-43.76	-31.43	-12.31	6.81	19.14	25.93	32.17	45.06
62	-64.45	-52.66	-46.98	-40.73	-29.44	-11.94	5.67	16.86	23.07	28.78	40.58
63	-58.95	-48.30	-43.15	-37.54	-27.35	-11.55	4.24	14.43	20.04	25.20	35.84
64	-53.48	-43.98	-39.38	-34.37	-25.28	-11.18	2.92	12.01	17.02	21.62	31.12
65	-48.34	-39.31	-35.83	-31.38	-23.31	-10.80	1.71	9.78	14.23	18.31	26.74
66	-42.95	-35.65	-32.11	-28.26	-21.26	-10.42	0.42	7.42	11.27	14.81	22.11
67	-37.65	-31.45	-28.45	-25.18	-19.25	-10.05	-0.85	5.09	8.35	11.36	17.55
68	-32.46	-27.34	-24.86	-22.16	-17.26	-9.66	-2.07	2.83	5.53	8.01	13.13
69	-27.76	-23.61	-21.60	-19.42	-15.45	-9.29	-3.14	0.83	3.02	5.03	9.17
70	-23.22	-20.01	-18.45	-16.76	-13.68	-8.91	-4.14	-1.06	0.63	2.19	5.40

TABLE 8.9. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

SEPTEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.89	-8.82	-7.81	-6.72	-4.73	-1.65	1.43	3.42	4.02	5.52	7.60
1	-20.45	-16.28	-14.26	-12.07	-8.07	-1.39	4.30	9.29	10.49	12.51	16.69
2	-20.03	-15.65	-13.53	-11.22	-7.03	-0.53	5.97	10.16	12.47	14.59	18.97
3	-18.86	-14.54	-12.44	-10.16	-6.02	.40	6.82	10.96	13.24	15.33	19.60
4	-18.29	-13.97	-11.88	-9.60	-5.47	.94	7.35	11.49	13.77	15.86	20.18
5	-18.81	-14.33	-12.16	-9.80	-5.51	1.13	7.79	12.07	14.43	16.60	21.07
6	-19.13	-14.56	-12.34	-9.93	-5.55	1.24	8.03	12.41	14.82	17.04	21.61
7	-20.33	-15.40	-13.01	-10.42	-5.70	1.61	8.92	13.63	16.23	19.62	23.54
8	-21.71	-16.35	-13.76	-10.93	-5.81	2.14	10.09	15.22	18.04	20.64	26.00
9	-22.77	-16.97	-14.17	-11.11	-5.56	3.05	11.66	17.21	20.26	23.07	28.87
10	-24.89	-18.42	-15.30	-11.89	-5.71	3.88	13.47	19.66	23.06	26.19	32.65
11	-27.23	-20.09	-16.62	-12.86	-6.07	4.59	15.20	22.04	25.80	29.26	36.41
12	-28.08	-20.55	-16.90	-12.93	-5.72	5.46	16.64	23.85	27.82	31.47	39.00
13	-29.39	-21.56	-17.77	-13.65	-6.15	5.47	17.09	24.58	28.71	32.50	40.23
14	-28.12	-20.88	-17.37	-13.55	-5.52	4.13	14.88	21.82	25.63	29.14	36.39
15	-24.73	-18.75	-15.80	-12.70	-6.38	1.89	10.77	16.49	19.65	22.54	28.52
16	-21.49	-16.75	-14.46	-11.96	-7.43	-4.40	6.64	11.17	13.67	15.96	20.70
17	-18.99	-15.20	-13.37	-11.37	-7.74	-2.12	3.50	7.13	9.13	10.96	14.75
18	-18.06	-14.90	-13.36	-11.69	-8.66	-3.96	.74	3.77	5.44	6.97	10.13
19	-18.49	-15.71	-14.36	-12.89	-10.22	-6.08	-1.95	.72	2.19	3.54	6.32
20	-19.97	-17.27	-15.97	-14.55	-11.97	-7.97	-3.97	-1.40	.02	1.33	4.02
21	-20.22	-17.60	-16.63	-15.35	-13.04	-9.45	-5.85	-3.54	-2.26	-1.09	1.33
22	-20.98	-18.66	-17.54	-16.31	-14.09	-10.64	-7.19	-4.97	-3.75	-2.62	-1.30
23	-22.33	-19.89	-18.71	-17.42	-15.09	-11.47	-7.85	-5.51	-4.23	-3.04	-1.60
24	-23.47	-20.90	-19.66	-18.30	-15.34	-12.03	-8.21	-5.75	-4.40	-3.15	-1.59
25	-24.98	-22.21	-20.85	-19.40	-16.75	-12.64	-8.53	-5.88	-4.42	-3.08	-1.31
26	-26.62	-23.55	-22.06	-20.45	-17.51	-12.96	-8.41	-5.47	-3.86	-2.37	-1.70
27	-27.75	-24.45	-22.85	-21.11	-17.95	-13.05	-8.15	-4.99	-3.25	-1.65	1.65
28	-28.96	-25.67	-22.08	-20.35	-17.20	-12.32	-7.44	-4.29	-2.56	-.96	2.33
29	-28.28	-24.77	-23.07	-21.21	-17.85	-12.63	-7.41	-4.05	-2.19	-.49	3.02
30	-27.31	-23.86	-22.19	-20.36	-17.06	-11.93	-6.80	-3.50	-1.67	-.00	3.45
31	-28.33	-24.55	-22.72	-20.73	-17.12	-11.51	-5.91	-2.29	-.30	1.53	5.30
32	-28.09	-24.29	-22.45	-20.44	-16.81	-11.16	-5.52	-1.88	.12	1.96	5.76
33	-29.09	-24.94	-22.93	-20.74	-16.77	-10.61	-4.45	-.48	1.70	3.71	7.86
34	-29.76	-25.25	-23.06	-20.68	-16.36	-9.66	-2.96	1.35	3.73	5.92	10.43
35	-30.65	-25.81	-23.46	-20.91	-16.28	-9.09	-1.90	2.73	5.29	7.63	12.47
36	-29.79	-25.13	-22.87	-20.41	-15.95	-9.03	-2.10	2.36	4.82	7.08	11.74
37	-31.86	-26.87	-24.41	-21.73	-16.86	-9.31	-1.76	3.11	5.79	8.25	13.34
38	-33.17	-27.94	-25.41	-22.66	-17.66	-9.90	-2.15	2.86	5.61	8.14	13.37
39	-32.79	-27.66	-25.17	-22.47	-17.56	-9.94	-2.33	2.58	5.29	7.77	12.90
40	-33.88	-28.38	-25.75	-22.89	-17.69	-9.64	-1.58	3.61	6.47	9.10	14.52
41	-37.62	-31.32	-28.27	-24.95	-18.92	-9.57	-.22	5.81	9.13	12.18	18.48
42	-38.83	-32.81	-29.29	-25.91	-19.76	-10.22	-.68	5.47	8.85	11.97	19.39
43	-44.12	-36.85	-33.33	-29.49	-22.53	-11.74	-.94	6.02	9.86	13.38	20.65
44	-41.13	-34.32	-31.02	-27.43	-20.91	-10.80	-.69	5.83	9.43	12.73	19.54
45	-37.60	-31.22	-28.18	-24.76	-18.65	-9.17	.31	6.42	9.79	12.88	19.27
46	-34.44	-28.45	-25.55	-22.39	-16.66	-7.77	1.12	6.85	10.01	12.91	18.90
47	-35.78	-29.32	-26.19	-22.79	-16.61	-7.03	2.55	8.73	12.14	15.26	21.72
48	-36.32	-29.73	-26.54	-23.07	-16.77	-7.00	2.78	9.08	12.55	15.74	22.32
49	-34.87	-28.44	-25.28	-21.84	-15.59	-5.89	3.80	10.05	13.49	16.65	23.18
50	-34.76	-27.80	-24.43	-20.76	-14.10	-3.77	6.56	13.23	16.90	20.27	27.23
51	-35.28	-31.34	-27.49	-23.31	-15.70	-3.91	7.87	15.48	19.66	23.51	31.45
52	-41.21	-33.03	-29.07	-24.76	-16.94	-4.80	7.33	15.16	19.47	23.43	31.60
53	-42.71	-33.91	-29.85	-25.01	-16.59	-3.53	9.53	17.95	22.59	26.85	35.65
54	-41.20	-32.16	-27.78	-23.02	-14.36	-.95	12.47	21.13	25.89	30.27	39.31
55	-40.41	-31.25	-26.81	-21.98	-13.21	.40	14.00	22.78	27.61	32.05	41.21
56	-38.72	-29.94	-25.69	-21.06	-12.66	.38	13.41	21.81	26.44	30.69	39.47
57	-37.02	-28.40	-24.23	-19.69	-11.45	1.34	14.13	22.37	26.91	31.08	39.70
58	-33.68	-24.80	-20.50	-15.83	-7.33	5.84	19.01	27.51	32.19	36.49	45.36
59	-31.08	-22.85	-18.66	-14.52	-6.64	5.58	17.79	25.67	30.01	34.00	42.23
60	-33.48	-31.92	-26.33	-20.24	-9.18	7.97	25.13	36.19	42.28	47.87	59.43
61	-43.17	-31.76	-26.23	-20.22	-9.30	7.64	24.58	35.50	41.51	47.04	58.45
62	-42.34	-31.19	-25.79	-19.92	-9.24	7.30	23.85	34.52	40.40	45.80	56.95
63	-41.80	-30.85	-25.54	-19.77	-9.29	6.97	23.23	33.71	39.48	44.79	55.74
64	-40.97	-30.28	-25.10	-19.47	-9.23	6.63	22.50	32.73	38.37	43.54	54.23
65	-40.41	-29.92	-24.84	-19.31	-9.26	6.31	21.88	31.93	37.46	42.54	53.03
66	-39.86	-29.57	-24.58	-19.16	-9.30	5.98	21.25	31.11	36.53	41.52	51.81
67	-39.03	-29.00	-24.14	-18.85	-9.25	5.64	20.53	30.13	35.42	40.28	50.31
68	-38.49	-28.66	-23.89	-18.71	-9.29	5.31	19.90	29.32	34.50	39.27	49.10
69	-37.66	-28.08	-23.45	-18.40	-9.24	4.97	19.18	28.34	33.39	38.02	47.60
70	-37.11	-27.73	-23.19	-18.25	-9.28	4.64	18.55	27.52	32.46	37.01	46.38

TABLE 8.10. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS

75 DEGREE FLIGHT AZIMUTH

OCTOBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.30	-8.74	-7.69	-6.55	-4.48	-1.26	1.35	4.02	5.16	6.21	8.37
1	-20.26	-16.13	-14.17	-11.95	-8.00	-1.87	4.25	8.21	10.38	12.38	16.51
2	-18.39	-14.09	-12.01	-9.74	-5.62	-1.77	7.15	11.27	13.54	15.62	19.93
3	-16.74	-12.38	-10.27	-7.98	-3.80	-2.67	9.14	13.31	15.61	17.72	22.04
4	-15.86	-11.34	-9.15	-6.77	-2.44	-2.44	10.39	15.32	17.72	19.49	24.42
5	-15.94	-11.03	-8.67	-6.07	-1.37	-5.31	13.20	17.90	20.48	22.86	27.77
6	-16.31	-10.93	-8.32	-5.49	-1.34	-7.64	15.62	20.77	23.60	26.21	31.59
7	-17.54	-11.45	-8.50	-4.28	-1.55	-9.60	18.65	24.48	27.70	30.65	36.74
8	-18.43	-11.61	-8.31	-4.72	-1.90	-11.92	22.03	28.55	32.14	35.44	42.20
9	-20.56	-12.73	-8.94	-4.82	-2.68	-14.29	25.91	33.41	37.52	41.32	49.15
10	-22.50	-13.73	-9.43	-4.36	-3.54	-16.56	29.57	37.97	42.59	46.84	55.61
11	-23.63	-14.12	-9.51	-4.50	-4.60	-18.72	32.87	41.93	46.95	51.55	61.06
12	-22.76	-13.13	-8.47	-3.33	-5.32	-20.11	34.40	43.62	48.69	53.36	62.39
13	-21.58	-12.25	-7.74	-2.82	-6.11	-19.96	33.80	42.73	47.65	52.17	61.49
14	-19.31	-10.92	-5.30	-2.43	-5.60	-18.06	30.51	39.55	42.97	47.04	55.43
15	-16.25	-9.24	-5.84	-2.15	-4.57	-14.98	25.39	32.10	35.80	39.14	46.21
16	-14.57	-8.89	-6.12	-3.12	-2.33	-10.77	19.22	24.67	27.67	30.42	36.11
17	-14.64	-9.89	-7.58	-5.08	-1.53	-6.52	13.58	18.13	20.63	22.97	27.69
18	-15.00	-11.01	-9.07	-6.97	-3.14	-7.79	16.82	22.54	24.65	26.58	30.51
19	-15.23	-11.82	-10.17	-8.38	-5.12	-9.00	19.99	26.41	28.05	29.70	33.11
20	-15.54	-12.45	-10.96	-9.33	-6.39	-10.79	22.79	29.55	31.14	32.46	35.43
21	-15.60	-12.88	-11.47	-10.32	-7.13	-12.79	25.15	32.44	33.58	34.52	37.43
22	-15.96	-13.15	-11.79	-10.31	-7.63	-13.46	27.00	34.39	35.46	36.22	39.03
23	-17.38	-14.75	-12.80	-11.29	-8.39	-13.89	28.61	35.51	36.57	37.35	40.60
24	-13.15	-14.92	-13.30	-11.60	-9.57	-13.79	30.00	36.09	37.35	38.46	41.58
25	-18.55	-15.15	-13.50	-11.70	-10.44	-13.39	31.67	37.00	38.46	39.52	42.60
26	-19.84	-15.98	-14.11	-12.08	-11.38	-12.66	33.07	38.00	39.52	40.60	43.60
27	-20.36	-16.19	-14.17	-12.97	-12.98	-12.79	34.40	39.00	40.60	41.60	44.60
28	-18.88	-14.78	-12.79	-10.63	-9.71	-12.62	35.66	39.99	41.55	42.60	45.60
29	-15.51	-14.97	-12.77	-10.38	-9.69	-12.62	36.99	40.99	42.60	43.60	46.60
30	-20.76	-15.60	-13.09	-10.37	-9.43	-12.23	38.30	41.99	43.60	44.60	47.60
31	-21.87	-16.16	-13.40	-10.39	-9.93	-12.01	39.61	42.99	44.60	45.60	48.60
32	-22.48	-16.16	-13.09	-9.76	-9.70	-11.07	40.91	43.99	45.60	46.60	49.60
33	-22.88	-15.89	-12.50	-8.81	-9.11	-10.27	42.21	44.99	46.60	47.60	50.60
34	-22.67	-15.12	-11.46	-7.48	-8.25	-10.95	43.51	45.99	47.60	48.60	51.60
35	-25.31	-16.77	-12.63	-8.12	-7.06	-12.74	44.81	46.99	48.60	49.60	52.60
36	-28.31	-19.26	-14.59	-9.51	-7.28	-14.04	46.11	47.99	49.60	50.60	53.60
37	-32.50	-21.79	-16.61	-10.96	-7.71	-15.19	47.41	48.99	50.60	51.60	54.60
38	-33.62	-22.25	-16.73	-10.74	-7.15	-17.04	48.71	49.99	51.60	52.60	55.60
39	-33.81	-21.77	-15.94	-9.60	-6.93	-19.80	49.99	50.99	52.60	53.60	56.60
40	-31.92	-19.73	-13.83	-7.40	-6.27	-22.36	51.29	51.99	53.60	54.60	57.60
41	-31.37	-19.05	-13.08	-6.59	-5.20	-23.48	52.59	52.99	54.60	55.60	58.60
42	-32.37	-19.47	-13.21	-6.41	-5.94	-25.10	53.89	53.99	55.60	56.60	59.60
43	-31.98	-18.96	-12.65	-5.79	-6.68	-26.01	55.19	54.99	56.60	57.60	60.60
44	-29.35	-17.08	-10.85	-4.06	-8.26	-27.37	56.49	55.99	57.60	58.60	61.60
45	-29.31	-16.12	-9.73	-2.78	-9.84	-29.42	57.79	56.99	58.60	59.60	62.60
46	-27.53	-14.34	-7.95	-1.00	-11.63	-31.20	59.09	57.99	59.60	60.60	63.60
47	-26.73	-13.32	-6.82	-0.23	-13.06	-32.95	60.39	58.99	60.60	61.60	64.60
48	-24.51	-11.16	-4.63	2.34	-15.12	-34.93	61.69	59.99	61.60	62.60	65.60
49	-24.33	-10.54	-3.87	3.40	-16.60	-37.06	62.99	60.99	62.60	63.60	66.60
50	-22.02	-8.32	-1.68	5.54	-18.66	-39.00	64.29	61.99	63.60	64.60	67.60
51	-23.51	-9.48	-2.68	4.72	-18.15	-38.98	65.59	62.99	64.60	65.60	68.60
52	-20.40	-6.54	-1.17	7.47	-20.74	-41.30	66.89	63.99	65.60	66.60	69.60
53	-17.78	-4.35	2.15	9.23	-22.08	-42.01	68.19	64.99	66.60	67.60	70.60
54	-15.61	-2.38	4.03	11.01	-23.68	-43.32	69.49	65.99	67.60	68.60	71.60
55	-17.47	-3.92	2.65	9.80	-22.78	-42.90	70.79	66.99	68.60	69.60	72.60
56	-19.14	-5.20	1.55	8.90	-22.24	-42.92	72.09	67.99	69.60	70.60	73.60
57	-20.32	-5.96	1.00	8.57	-22.32	-43.64	73.39	68.99	70.60	71.60	74.60
58	-22.26	-7.79	-0.79	6.84	-20.69	-42.17	74.69	69.99	71.60	72.60	75.60
59	-19.48	-5.82	0.79	7.99	-21.06	-41.32	75.99	70.99	72.60	73.60	76.60
60	-24.42	-10.16	-3.26	4.26	-17.90	-39.06	77.29	71.99	73.60	74.60	77.60
61	-24.68	-10.76	-4.01	3.33	-16.66	-37.32	78.59	72.99	74.60	75.60	78.60
62	-25.53	-11.81	-5.16	2.07	-15.20	-35.57	79.89	73.99	75.60	76.60	79.60
63	-26.07	-12.62	-6.10	0.99	-13.87	-33.83	81.19	74.99	76.60	77.60	80.60
64	-26.90	-13.65	-7.24	-0.25	-12.43	-32.09	82.49	75.99	77.60	78.60	81.60
65	-27.74	-14.69	-8.37	-1.50	-10.99	-30.35	83.79	76.99	78.60	79.60	82.60
66	-28.58	-15.74	-9.52	-2.75	-9.54	-28.60	85.09	77.99	79.60	80.60	83.60
67	-29.41	-16.77	-10.65	-3.99	-8.10	-26.86	86.39	78.99	80.60	81.60	84.60
68	-29.96	-17.59	-11.60	-5.08	-6.76	-25.12	87.69	79.99	81.60	82.60	85.60
69	-30.81	-18.64	-12.75	-6.34	-5.31	-23.37	88.99	80.99	82.60	83.60	86.60
70	-31.65	-19.69	-13.89	-7.58	-3.87	-21.63	90.29	81.99	83.60	84.60	87.60

TABLE 8.11. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

NOVEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.96	-7.04	-6.12	-5.16	-4.26	-3.42	-2.43	-1.47	-0.23	6.21	8.13
1	-21.26	-16.60	-14.34	-11.39	-7.43	-5.51	6.41	10.97	13.32	15.58	20.24
2	-19.85	-14.90	-12.61	-9.96	-7.16	-5.18	3.52	14.25	16.56	19.26	24.20
3	-18.22	-13.08	-10.69	-7.83	-5.75	-4.68	12.32	17.24	19.35	22.44	27.53
4	-16.92	-11.57	-8.68	-6.16	-4.05	-2.89	14.82	19.04	22.76	25.35	30.69
5	-16.93	-11.02	-8.16	-5.05	-2.61	-1.38	18.15	23.30	26.01	29.77	35.69
6	-17.30	-10.71	-7.57	-4.04	-2.27	-1.05	21.84	28.15	31.62	34.82	41.41
7	-16.77	-9.69	-6.77	-3.54	-1.92	-0.74	25.24	32.01	35.74	39.17	46.24
8	-17.34	-9.52	-6.74	-3.62	-1.82	-0.90	27.07	36.55	40.67	44.46	52.27
9	-18.01	-9.39	-5.22	-2.68	-1.62	-0.77	28.36	41.40	45.35	50.12	58.74
10	-20.17	-10.46	-5.75	-2.04	-1.05	-0.55	27.40	46.79	51.01	56.61	66.32
11	-19.64	-9.45	-4.51	-1.80	-0.91	-0.35	40.35	50.60	55.37	60.92	71.09
12	-19.33	-8.78	-3.67	-1.82	-1.00	-0.33	43.33	53.43	58.09	64.15	74.65
13	-15.75	-5.93	-1.12	-3.99	-1.23	-0.35	47.52	51.92	57.19	61.94	71.66
14	-12.53	-3.88	-0.30	-4.86	-1.12	-0.36	48.79	47.06	51.61	55.80	64.44
15	-9.40	-2.27	1.19	-4.95	-1.78	-0.37	32.36	39.78	43.54	47.00	54.13
16	-8.66	-2.65	0.26	-3.43	-1.18	-0.37	27.02	32.77	35.24	38.85	44.86
17	-9.13	-4.04	-1.57	-1.11	-0.59	-0.34	21.10	25.47	28.66	31.12	36.22
18	-10.77	-4.33	-4.18	-1.93	-2.42	-0.61	15.61	19.86	22.60	24.35	28.80
19	-11.36	-7.49	-5.62	-3.59	-1.11	-0.34	11.57	15.26	17.32	19.17	23.23
20	-12.33	-8.70	-6.94	-5.02	-1.55	-0.23	9.23	12.71	14.62	16.38	20.01
21	-13.80	-10.00	-8.17	-6.16	-2.53	-0.37	8.74	12.37	14.37	16.21	20.01
22	-14.60	-10.63	-8.70	-6.60	-2.80	-0.31	9.01	12.82	14.91	16.84	20.82
23	-14.89	-10.70	-8.67	-6.47	-2.46	-0.36	9.98	13.99	16.20	18.22	22.42
24	-15.33	-10.81	-8.12	-6.24	-1.91	-0.40	11.51	15.83	18.22	20.42	24.92
25	-15.48	-11.39	-8.92	-6.24	-1.30	-0.70	13.76	18.63	21.32	23.73	29.38
26	-16.41	-11.01	-8.28	-6.54	-0.37	-0.77	16.66	20.86	23.71	26.32	31.73
27	-17.00	-11.07	-3.20	-5.03	-0.60	-0.79	18.19	23.56	26.39	29.85	35.78
28	-12.41	-8.41	-4.10	-1.15	4.20	12.51	20.82	26.18	29.13	31.94	37.44
29	-12.44	-8.23	-3.24	-0.01	5.92	15.08	24.24	30.15	33.40	36.39	42.56
30	-12.29	-8.82	-2.57	0.97	7.41	17.38	27.35	33.78	37.32	40.58	47.29
31	-10.66	-3.79	-0.47	3.15	9.73	19.92	30.12	36.69	40.31	43.64	50.51
32	-8.31	-1.32	2.07	5.75	12.45	22.82	33.20	39.90	43.58	46.97	53.96
33	-7.92	-0.26	3.44	7.48	14.81	26.17	37.53	44.86	48.89	52.60	60.25
34	-7.06	1.07	5.01	9.30	17.09	29.16	41.23	49.02	53.30	57.24	65.35
35	-6.69	1.84	5.97	10.47	18.63	31.30	43.96	52.13	56.62	60.75	69.29
36	-6.58	2.33	6.63	11.31	19.81	33.00	46.18	54.68	59.36	63.66	72.54
37	-6.81	3.37	7.81	12.65	21.44	35.06	48.68	57.47	62.30	66.75	75.93
38	-4.29	5.11	9.67	14.63	23.63	37.59	51.55	60.56	65.51	70.07	79.47
39	-7.76	8.41	12.84	17.68	26.45	40.05	53.66	62.43	67.26	71.70	80.87
40	2.26	11.42	15.85	20.68	29.45	43.04	56.63	65.39	70.22	74.65	83.81
41	4.86	15.77	18.09	22.79	31.32	44.55	57.78	66.31	71.01	75.33	84.24
42	6.82	15.77	20.11	24.82	31.39	46.68	59.96	68.53	73.25	77.58	86.53
43	7.96	17.31	21.83	26.76	35.71	49.58	63.45	72.40	77.33	81.85	91.20
44	9.24	19.03	23.77	28.93	38.30	52.83	67.37	76.74	81.90	86.64	96.43
45	5.47	20.11	25.26	30.87	41.05	56.84	72.63	82.81	88.42	93.57	104.21
46	7.94	19.47	25.05	31.12	42.16	59.26	76.37	87.40	93.47	99.06	110.58
47	10.78	22.67	28.42	34.69	46.07	63.71	81.35	92.73	99.00	104.75	116.64
48	10.58	23.17	29.26	35.90	47.95	66.63	85.31	97.36	103.99	110.09	122.68
49	11.99	24.70	30.85	37.55	49.72	68.58	87.45	99.61	106.31	112.46	125.17
50	13.46	26.40	32.67	39.49	51.88	71.09	90.30	102.69	109.52	115.78	129.73
51	15.28	26.38	32.73	39.64	52.19	71.64	91.10	103.64	110.55	116.90	130.01
52	15.72	26.84	33.20	40.12	52.68	72.16	91.63	104.19	111.11	117.47	130.59
53	12.72	26.23	32.78	39.90	52.84	72.90	92.96	105.90	113.02	119.57	133.08
54	13.03	26.83	33.51	40.78	53.99	74.47	94.94	108.15	115.42	122.10	135.90
55	13.03	26.60	33.18	40.33	53.32	73.47	93.61	106.61	113.76	120.33	133.90
56	9.02	23.48	30.49	38.11	51.95	73.42	94.89	108.73	116.35	123.36	137.82
57	6.39	23.24	30.44	38.26	52.48	74.52	96.57	110.78	118.61	125.80	140.65
58	13.21	26.96	33.62	40.86	54.02	74.42	94.82	107.98	115.22	121.88	135.63
59	22.42	34.46	40.29	46.63	58.16	76.03	93.90	105.42	111.76	117.59	129.63
60	21.36	34.07	40.23	46.92	59.09	77.96	96.82	108.99	115.68	121.84	136.55
61	21.50	33.74	39.66	46.11	57.82	75.98	94.14	105.85	112.30	118.22	130.66
62	20.42	32.45	38.28	44.62	56.14	74.00	91.86	103.38	109.72	115.55	127.58
63	19.34	31.17	36.90	43.14	54.46	72.02	89.58	100.91	107.14	112.87	124.70
64	18.26	29.89	35.52	41.65	52.78	70.04	87.30	98.43	104.56	110.20	121.82
65	17.17	28.60	34.14	40.16	51.11	68.07	85.04	95.98	102.01	107.54	118.87
66	16.17	27.54	32.95	38.83	49.52	66.09	82.67	93.35	99.24	104.65	115.81
67	15.29	26.26	31.57	37.35	47.84	64.11	80.39	90.88	96.66	101.97	112.93
68	14.21	24.97	30.19	35.86	46.16	62.13	78.11	88.41	94.08	99.29	110.06
69	13.13	23.59	28.81	34.37	44.48	60.15	75.83	85.94	91.50	96.62	107.18
70	12.06	22.41	27.43	32.89	42.80	58.18	73.55	83.47	88.93	93.94	104.30

TABLE 8.12. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

DECEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.58	-5.22	-4.97	-4.04	-2.35	.27	2.98	4.57	5.50	6.35	8.12
1	-19.19	-14.63	-12.42	-10.01	-5.65	1.13	7.90	12.27	14.67	16.99	21.45
2	-17.15	-12.26	-9.90	-7.32	-2.64	4.61	11.80	16.54	19.11	21.48	26.36
3	-15.27	-10.09	-7.52	-4.35	.10	7.79	13.49	20.44	23.17	25.69	30.86
4	-14.25	-8.56	-5.80	-2.81	2.64	11.06	19.52	24.96	27.96	30.71	36.40
5	-14.28	-7.92	-4.84	-1.50	4.53	14.02	23.45	29.53	32.33	35.96	42.31
6	-13.58	-6.71	-3.32	.24	6.82	17.01	27.21	33.78	37.41	40.73	47.60
7	-14.20	-6.50	-2.77	1.29	8.65	20.03	31.51	38.98	42.34	46.67	54.36
8	-15.61	-6.89	-2.67	1.92	10.27	22.22	36.16	44.51	49.10	53.33	62.05
9	-17.54	-7.72	-2.91	2.32	11.81	24.54	41.27	50.70	55.30	60.80	70.72
10	-18.98	-8.07	-2.78	2.37	13.42	26.62	45.82	56.27	62.03	67.31	78.23
11	-18.02	-6.77	-1.32	4.61	15.37	29.07	49.77	59.56	65.47	70.91	82.16
12	-15.75	-4.46	1.01	6.97	17.78	31.55	51.22	62.13	68.08	73.55	84.85
13	-11.46	-1.95	4.14	7.29	19.75	35.16	50.97	61.03	66.57	71.67	82.19
14	-8.61	.94	6.57	10.66	19.74	33.91	48.09	57.23	62.26	66.89	76.44
15	-6.50	1.30	5.32	10.20	18.15	30.47	42.73	50.73	55.11	59.17	67.43
16	-5.21	1.81	5.21	8.91	15.63	26.05	36.47	42.19	46.89	50.29	57.21
17	-6.20	-0.05	2.57	6.13	12.07	21.20	30.33	36.23	39.47	42.45	48.60
18	-7.79	-2.94	.17	2.96	8.08	15.02	23.95	29.07	31.89	34.47	39.82
19	-11.16	-6.16	-3.74	-1.11	3.63	11.09	18.51	23.29	25.93	28.35	33.34
20	-12.58	-7.91	-5.67	-2.15	1.25	9.22	15.15	19.62	22.09	24.35	29.02
21	-13.52	-8.09	-6.64	-4.20	.24	7.12	14.00	18.44	20.88	23.13	27.76
22	-12.96	-8.51	-6.37	-4.01	.25	6.85	13.46	17.72	20.07	22.22	26.67
23	-13.70	-8.89	-6.57	-4.04	.56	7.69	14.82	19.42	21.95	24.28	29.05
24	-14.60	-9.19	-6.67	-3.72	1.46	9.48	17.51	22.09	25.54	28.16	33.57
25	-15.43	-9.47	-6.55	-3.33	2.39	11.33	20.27	26.03	29.21	32.12	38.15
26	-16.84	-10.18	-6.96	-3.45	2.93	12.82	22.70	29.08	32.59	35.81	42.47
27	-17.97	-10.79	-7.31	-3.52	3.36	14.02	24.69	31.57	35.36	38.84	46.02
28	-24.15	-15.68	-11.58	-7.91	.99	13.56	26.13	34.24	38.70	42.80	51.27
29	-27.64	-18.10	-13.47	-8.44	.70	14.87	29.03	38.17	43.20	47.83	57.37
30	-28.15	-18.00	-13.08	-7.73	1.99	17.06	32.13	41.85	47.20	52.11	62.27
31	-30.44	-19.26	-13.85	-7.86	2.74	19.32	35.91	46.61	52.50	57.91	69.09
32	-32.03	-20.13	-14.36	-8.09	3.31	20.98	38.65	50.05	56.32	62.09	74.00
33	-36.53	-24.86	-18.23	-11.03	2.06	22.36	42.66	55.75	62.96	69.58	83.26
34	-40.60	-26.13	-19.12	-11.50	2.35	23.82	45.30	59.14	66.77	73.78	88.24
35	-43.82	-28.51	-21.10	-13.03	1.63	24.35	47.07	61.73	69.79	77.21	92.52
36	-45.81	-29.82	-21.22	-13.84	1.37	24.97	48.56	63.77	72.15	79.85	95.74
37	-50.03	-33.04	-24.81	-15.85	.42	25.64	50.87	67.13	76.09	84.32	101.32
38	-54.60	-36.48	-27.70	-18.15	.80	26.10	52.99	70.34	79.89	88.67	106.79
39	-56.77	-37.95	-28.84	-18.93	.92	27.00	54.92	72.93	82.85	91.96	110.77
40	-59.60	-39.94	-30.42	-20.05	-1.23	27.95	57.14	75.96	86.32	95.84	115.50
41	-60.96	-40.83	-31.09	-20.48	-1.21	28.67	58.55	77.81	88.42	98.17	118.30
42	-62.27	-41.89	-32.01	-21.27	-1.75	28.51	58.77	78.29	89.03	98.91	119.30
43	-63.20	-42.67	-32.73	-21.90	-2.25	28.23	59.71	78.37	89.19	99.14	119.67
44	-62.12	-41.83	-32.00	-21.31	-1.88	28.23	58.35	77.77	88.47	98.30	118.59
45	-64.69	-43.78	-33.65	-22.63	-2.61	28.43	59.48	79.50	90.52	100.65	121.56
46	-65.35	-44.12	-33.88	-22.65	-2.33	29.18	60.69	81.02	92.21	102.49	123.72
47	-66.10	-44.51	-34.05	-22.66	-1.99	30.07	62.12	82.80	94.18	104.64	126.24
48	-66.44	-44.59	-34.01	-22.50	-1.59	30.84	63.27	84.18	95.70	106.28	128.13
49	-67.07	-45.09	-34.44	-22.85	-1.81	30.82	63.45	84.49	96.07	106.72	128.70
50	-66.34	-44.55	-34.00	-22.52	-1.66	30.68	63.02	83.88	95.36	105.91	127.70
51	-68.42	-46.00	-35.14	-23.32	-1.86	31.42	64.70	86.16	97.98	108.83	131.25
52	-70.50	-47.87	-36.91	-24.98	-3.31	30.28	63.88	85.55	97.48	108.44	131.07
53	-72.57	-49.47	-38.29	-26.11	-4.00	30.29	64.57	86.68	98.46	110.05	133.15
54	-73.02	-49.68	-38.38	-26.08	-3.75	30.89	65.52	87.86	100.16	111.46	134.79
55	-73.54	-49.91	-38.47	-26.01	-3.39	31.68	66.76	89.38	101.84	113.28	136.91
56	-75.05	-50.36	-38.40	-25.38	-1.75	34.91	71.56	95.20	108.21	120.17	144.86
57	-72.09	-47.93	-36.23	-23.50	.37	35.50	71.36	94.49	107.22	118.92	143.08
58	-68.90	-46.44	-35.56	-23.72	-2.22	31.12	64.46	85.96	97.80	108.68	131.14
59	-70.71	-47.58	-36.37	-24.17	-2.02	32.32	66.67	88.61	101.01	112.22	135.36
60	-80.78	-54.76	-42.16	-28.45	-3.54	35.08	73.70	98.60	112.32	124.92	150.93
61	-68.38	-45.54	-34.48	-22.45	.59	33.31	67.21	89.07	101.11	112.17	135.01
62	-64.25	-42.74	-32.32	-20.98	.39	31.55	63.88	84.07	95.41	105.83	127.34
63	-60.41	-40.15	-30.34	-19.67	.24	29.78	59.85	79.23	89.91	99.72	119.97
64	-56.28	-37.35	-28.18	-18.20	.08	28.02	56.12	74.24	84.22	93.38	112.32
65	-52.15	-34.55	-26.02	-16.74	.12	26.26	52.40	69.25	78.53	87.06	104.67
66	-48.05	-31.76	-23.87	-15.29	.30	24.48	48.65	64.25	72.84	80.72	97.01
67	-43.93	-28.96	-21.71	-13.83	.50	22.72	44.93	59.26	67.15	74.40	89.37
68	-40.11	-26.39	-19.75	-12.53	.60	20.96	41.31	54.44	61.66	68.31	82.02
69	-36.00	-23.61	-17.61	-11.07	.79	19.19	37.59	49.45	55.99	61.99	74.38
70	-31.91	-20.83	-15.46	-9.63	.98	17.43	33.87	44.48	50.32	55.68	66.76

TABLE 9.1. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

JANUARY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.72	-9.32	-8.16	-6.90	-4.61	-1.06	2.49	4.78	6.24	7.20	9.67
1	-15.33	-14.97	-12.86	-10.56	-6.38	-0.09	6.57	10.75	13.64	15.16	19.52
2	-20.23	-15.05	-13.73	-11.42	-7.22	-0.72	5.79	9.98	12.29	14.41	19.79
3	-23.23	-18.34	-15.98	-13.40	-8.72	-1.47	5.79	10.47	13.64	15.41	20.30
4	-25.39	-20.13	-17.59	-14.82	-9.79	-1.39	5.81	10.83	13.60	16.15	21.40
5	-27.90	-22.21	-19.45	-16.45	-11.00	-2.56	5.89	11.34	14.34	17.10	22.79
6	-30.67	-24.44	-21.42	-18.14	-12.17	-2.92	6.33	12.30	15.58	19.60	24.83
7	-33.53	-26.74	-23.45	-19.86	-13.36	-3.28	6.81	13.31	16.89	20.18	26.98
8	-37.01	-29.57	-25.96	-22.04	-14.91	-3.86	7.19	14.31	18.23	21.94	29.29
9	-40.35	-32.29	-28.38	-24.13	-16.41	-4.44	7.53	15.25	19.51	23.41	31.48
10	-42.16	-33.80	-29.75	-25.34	-17.34	-4.93	7.48	15.48	19.83	23.93	32.24
11	-45.58	-36.97	-32.61	-27.86	-19.24	-5.88	7.49	16.11	20.96	25.22	34.23
12	-46.16	-37.24	-32.92	-29.21	-19.87	-6.42	6.83	15.37	20.07	24.40	33.32
13	-41.43	-33.61	-29.82	-25.70	-18.21	-6.60	5.01	12.50	16.62	20.41	28.23
14	-36.72	-29.98	-26.71	-23.16	-16.70	-6.70	3.31	9.77	17.32	16.59	23.37
15	-33.25	-27.07	-24.08	-20.82	-14.90	-5.73	3.44	9.36	17.62	15.61	21.79
16	-28.48	-23.15	-20.56	-17.75	-12.65	-4.73	3.19	8.29	11.11	13.69	19.02
17	-24.93	-20.24	-17.97	-15.50	-11.02	-4.06	2.89	7.38	9.85	12.12	16.80
18	-19.44	-15.75	-13.97	-12.02	-8.50	-3.03	2.44	5.97	7.31	9.70	13.38
19	-15.29	-12.34	-10.91	-9.38	-6.54	-2.16	2.21	5.03	6.59	8.02	10.96
20	-12.71	-10.23	-9.02	-7.71	-5.32	-1.61	2.09	4.49	5.30	7.01	9.50
21	-12.25	-9.79	-8.60	-7.30	-4.94	-1.28	2.38	4.74	6.04	7.23	9.70
22	-11.99	-9.68	-8.26	-6.93	-4.53	-0.79	2.94	5.35	6.67	7.89	10.40
23	-12.30	-9.60	-8.29	-6.87	-4.29	-0.29	3.71	6.29	7.71	9.02	11.72
24	-12.18	-9.47	-8.16	-6.74	-4.16	-0.16	3.84	6.42	7.84	9.18	11.84
25	-13.37	-10.43	-9.00	-7.45	-4.44	-0.27	4.10	6.32	8.47	9.90	12.84
26	-15.89	-11.79	-10.19	-8.45	-5.30	-0.40	4.50	7.66	9.40	11.00	14.30
27	-17.90	-13.76	-11.30	-9.28	-5.60	-0.09	5.79	9.47	11.49	13.35	17.19
28	-16.26	-12.22	-10.26	-8.13	-4.26	1.73	7.73	11.60	13.73	15.69	19.73
29	-14.63	-10.67	-11.08	-9.46	-5.08	1.78	8.47	12.84	15.25	17.46	22.03
30	-20.38	-16.39	-12.96	-10.36	-5.63	1.71	9.04	13.77	16.37	18.77	23.71
31	-22.16	-16.74	-14.11	-11.25	-6.06	1.99	10.04	15.23	18.09	20.71	26.14
32	-23.48	-19.40	-16.49	-13.32	-7.57	1.34	10.25	16.00	19.16	22.07	28.08
33	-26.45	-22.82	-18.81	-15.82	-9.36	1.18	9.73	15.89	19.27	22.39	28.82
34	-28.38	-25.21	-21.75	-18.00	-11.17	-0.59	10.00	16.82	20.58	24.03	31.16
35	-34.85	-27.19	-23.44	-19.44	-12.10	-0.73	10.65	17.98	22.02	25.73	33.40
36	-34.28	-27.77	-24.01	-19.82	-12.46	-0.95	10.58	18.02	22.11	25.97	33.64
37	-34.76	-27.24	-23.59	-19.62	-12.42	-1.24	9.93	17.13	21.10	24.75	32.28
38	-34.82	-26.52	-22.26	-19.81	-11.83	-0.70	10.43	17.61	21.57	25.20	32.70
39	-34.87	-26.77	-22.79	-19.78	-11.50	-0.22	11.07	18.34	22.35	26.03	33.63
40	-34.87	-26.82	-22.94	-19.92	-11.82	-0.71	10.41	17.58	21.53	25.16	32.65
41	-34.87	-26.86	-21.88	-17.98	-10.91	-0.07	11.09	18.12	22.01	25.59	32.98
42	-34.87	-26.88	-22.72	-18.14	-12.73	-0.77	12.27	19.69	23.77	27.52	35.27
43	-34.87	-26.88	-21.44	-17.29	-9.76	1.92	13.60	21.13	25.28	29.09	36.96
44	-34.87	-26.88	-21.16	-19.52	-15.55	-4.36	2.41	13.97	21.17	25.13	36.29
45	-34.87	-26.88	-21.81	-18.40	-14.90	-7.78	3.25	14.28	21.40	25.32	36.35
46	-34.87	-26.88	-21.39	-19.47	-15.25	-7.60	4.27	16.14	23.79	28.00	38.87
47	-34.87	-26.88	-21.17	-16.45	-7.88	5.40	18.69	27.26	31.98	36.32	45.27
48	-34.87	-26.88	-21.13	-19.88	-15.24	-6.82	5.29	19.30	27.72	32.35	45.42
49	-34.87	-26.88	-20.32	-15.76	-7.48	5.36	18.21	26.49	31.05	35.24	43.90
50	-34.87	-26.88	-20.17	-15.81	-7.85	9.49	16.83	24.79	29.18	33.21	41.52
51	-34.87	-26.88	-20.42	-16.18	-8.49	3.43	15.36	23.05	27.28	31.17	39.21
52	-34.87	-26.88	-22.88	-18.54	-10.65	1.59	13.83	21.72	26.07	30.06	38.31
53	-34.87	-26.88	-25.41	-20.81	-12.45	-0.51	13.47	21.43	26.43	30.66	39.39
54	-34.87	-26.88	-25.71	-21.06	-12.57	-0.58	13.74	22.22	26.89	31.18	40.05
55	-34.87	-26.88	-26.36	-21.82	-13.88	-0.81	11.97	20.21	24.75	28.92	37.52
56	-34.87	-26.88	-26.83	-22.05	-13.72	-0.81	12.10	20.42	25.01	29.22	37.82
57	-34.87	-26.88	-26.84	-22.05	-13.72	-0.81	13.26	22.55	27.66	32.36	42.07
58	-34.87	-26.88	-26.84	-22.05	-13.72	-0.81	15.38	26.62	32.80	38.48	50.21
59	-34.87	-26.88	-26.84	-22.05	-13.72	-0.81	13.12	24.49	30.76	36.49	48.36
60	-34.87	-26.88	-26.84	-22.05	-13.72	-0.81	12.88	24.73	31.60	37.85	50.75
61	-34.87	-26.88	-26.84	-22.05	-13.72	-0.81	11.83	23.62	30.11	36.08	48.39
62	-34.87	-26.88	-26.84	-22.05	-13.72	-0.81	10.75	21.67	27.69	33.21	44.62
63	-34.87	-26.88	-26.84	-22.05	-13.72	-0.81	9.77	19.88	25.45	30.57	41.13
64	-34.87	-26.88	-26.84	-22.05	-13.72	-0.81	8.73	18.00	23.10	27.79	37.47
65	-34.87	-26.88	-26.84	-22.05	-13.72	-0.81	7.81	16.31	20.99	25.29	34.17
66	-34.87	-26.88	-26.84	-22.05	-13.72	-0.81	6.88	14.53	18.77	22.66	30.71
67	-34.87	-26.88	-26.84	-22.05	-13.72	-0.81	5.99	12.97	16.81	20.34	27.63
68	-34.87	-26.88	-26.84	-22.05	-13.72	-0.81	5.12	11.36	14.80	17.96	24.48
69	-34.87	-26.88	-26.84	-22.05	-13.72	-0.81	4.29	10.04	13.13	15.97	21.84
70	-34.87	-26.88	-26.84	-22.05	-13.72	-0.81	3.78	8.81	11.59	14.13	19.39

TABLE 9.2. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

FEBRUARY

Alt (km)	Cumulative Percentage Probability									
	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.865
0	-12.06	-9.40	-8.11	-6.70	-4.16	-2.20	3.75	6.70	7.70	8.99
1	-18.73	-14.22	-12.04	-10.67	-5.35	1.33	8.01	12.32	14.69	16.87
2	-20.30	-15.75	-13.57	-12.20	-6.81	-0.07	6.68	11.07	13.42	15.62
3	-22.81	-17.85	-15.67	-14.30	-8.10	-7.74	6.62	11.36	13.98	16.38
4	-25.05	-19.65	-17.47	-16.10	-9.02	-1.01	7.00	12.17	15.01	17.63
5	-27.73	-21.83	-19.65	-18.28	-10.22	-1.46	7.29	12.98	16.05	19.00
6	-28.87	-22.80	-20.62	-19.25	-11.85	-1.84	7.17	12.98	16.19	19.11
7	-31.24	-24.76	-21.62	-20.21	-12.00	-2.38	7.24	13.44	16.86	20.00
8	-34.29	-27.30	-23.51	-22.22	-13.53	-3.14	7.24	17.97	17.62	21.01
9	-37.21	-29.74	-25.42	-24.13	-15.03	-3.94	7.15	14.30	18.24	21.46
10	-41.42	-33.23	-29.26	-27.94	-17.11	-4.95	7.21	15.04	19.35	23.33
11	-45.17	-36.76	-32.07	-30.45	-19.02	-5.94	7.14	15.58	20.22	24.49
12	-45.55	-36.76	-32.54	-30.92	-19.57	-6.51	6.50	14.89	19.51	23.75
13	-40.26	-31.72	-27.05	-25.09	-17.86	-6.65	4.54	11.77	15.74	19.40
14	-36.51	-29.73	-25.47	-22.87	-16.39	-6.33	3.73	10.72	13.79	17.08
15	-32.55	-26.39	-23.50	-20.36	-14.56	-5.81	3.04	9.75	11.89	14.78
16	-28.57	-23.26	-20.69	-17.89	-12.80	-4.91	2.98	8.00	10.00	13.44
17	-24.81	-19.99	-17.71	-15.32	-11.00	-4.29	2.42	6.75	9.13	11.32
18	-19.56	-15.85	-14.10	-12.20	-8.75	-3.40	1.96	5.41	7.31	9.06
19	-15.32	-12.35	-10.93	-9.77	-6.54	-2.15	2.24	5.09	6.64	9.07
20	-12.55	-10.06	-8.87	-7.94	-4.96	-1.11	2.74	5.22	6.54	7.84
21	-14.27	-11.29	-9.85	-8.73	-5.44	-1.03	3.38	5.23	7.79	9.23
22	-13.45	-10.67	-9.27	-8.36	-5.20	-1.07	3.06	5.72	7.18	8.53
23	-12.66	-9.95	-8.64	-7.22	-4.63	-0.61	3.40	5.99	7.42	8.73
24	-12.21	-9.58	-8.30	-6.92	-4.40	-0.49	3.42	5.94	7.32	8.60
25	-11.70	-9.26	-8.09	-6.73	-4.45	-0.82	2.81	5.15	6.43	7.62
26	-12.85	-10.17	-8.87	-7.45	-4.89	-0.90	3.08	5.55	7.06	8.36
27	-13.23	-10.46	-9.12	-7.66	-5.00	-0.89	3.23	5.89	7.34	8.68
28	-11.81	-9.24	-8.00	-6.65	-4.19	-0.38	3.43	5.89	7.24	8.48
29	-14.09	-11.02	-9.54	-7.92	-4.98	-0.43	4.12	7.06	8.67	10.16
30	-14.64	-11.39	-9.81	-8.09	-4.97	-0.13	4.70	7.82	9.54	11.12
31	-13.80	-10.74	-9.26	-7.65	-4.73	-0.19	4.35	7.27	8.88	10.36
32	-15.26	-11.81	-10.14	-8.32	-5.02	-0.10	5.22	8.52	10.34	12.01
33	-17.95	-14.43	-12.73	-10.87	-7.51	-2.29	2.93	6.30	8.15	9.86
34	-22.02	-18.11	-16.22	-14.16	-10.42	-4.62	1.18	4.93	6.98	8.88
35	-26.02	-21.36	-19.10	-16.65	-12.19	-5.27	1.65	6.11	8.57	10.83
36	-25.17	-20.76	-18.63	-16.31	-12.09	-5.55	0.99	5.20	7.52	9.66
37	-26.17	-21.63	-19.44	-17.05	-12.71	-5.98	0.75	5.09	7.48	9.67
38	-27.80	-23.03	-20.72	-18.21	-13.65	-6.57	0.50	5.06	7.58	9.88
39	-31.61	-26.08	-23.40	-20.88	-15.19	-6.97	1.24	6.54	9.46	12.14
40	-33.09	-27.20	-24.35	-21.25	-15.62	-6.88	1.85	7.48	10.59	13.44
41	-35.65	-28.97	-25.73	-22.21	-15.82	-5.90	4.01	10.40	13.92	17.16
42	-33.92	-27.38	-24.22	-20.77	-14.51	-4.80	4.90	11.16	14.61	17.78
43	-33.02	-26.54	-23.41	-20.00	-13.80	-4.20	5.41	11.61	15.02	18.15
44	-34.64	-27.64	-24.25	-20.56	-13.86	-3.47	6.92	13.63	17.32	20.71
45	-33.39	-26.30	-22.87	-19.13	-12.35	-1.83	8.69	15.47	19.21	22.64
46	-34.71	-27.15	-23.49	-19.51	-12.28	-1.07	10.15	17.38	21.36	25.02
47	-34.01	-26.62	-23.04	-19.14	-12.07	-1.10	9.87	16.95	20.85	24.43
48	-32.73	-25.79	-22.43	-18.71	-12.12	-1.82	8.48	15.12	18.78	22.14
49	-31.89	-25.34	-22.16	-18.71	-12.43	-2.71	7.02	13.30	16.75	19.93
50	-32.78	-26.12	-22.89	-19.38	-13.00	-3.11	6.78	13.16	16.67	19.90
51	-35.55	-28.32	-24.81	-21.00	-14.07	-3.33	7.41	14.33	18.15	21.65
52	-40.65	-32.41	-28.42	-24.08	-16.20	-3.98	8.25	16.13	20.47	24.66
53	-42.12	-33.80	-29.76	-25.37	-17.40	-5.04	7.32	15.29	19.68	23.72
54	-46.56	-37.41	-32.93	-28.06	-19.20	-5.48	8.25	17.10	21.97	26.45
55	-48.97	-39.06	-34.25	-29.03	-19.54	-4.83	9.89	19.38	24.60	29.40
56	-50.40	-40.32	-35.44	-30.12	-20.47	-5.50	9.47	19.12	24.44	29.32
57	-52.67	-42.25	-37.20	-31.71	-21.74	-6.27	9.20	19.17	24.66	29.71
58	-47.33	-38.12	-33.66	-28.81	-19.99	-6.32	7.34	16.16	21.01	25.47
59	-46.95	-37.56	-33.01	-28.06	-19.07	-5.12	8.82	17.81	22.76	27.31
60	-51.70	-45.62	-39.76	-33.39	-21.83	-3.89	14.04	25.61	31.98	37.83
61	-51.56	-40.81	-35.60	-29.93	-19.64	-3.68	12.28	22.58	28.25	33.46
62	-50.38	-39.84	-34.74	-29.19	-19.11	-3.47	12.16	22.25	27.80	33.43
63	-49.48	-39.10	-34.07	-28.60	-18.66	-3.26	12.15	22.08	27.55	32.58
64	-49.28	-38.12	-33.20	-27.85	-18.12	-3.04	12.04	21.76	27.12	32.04
65	-47.35	-37.35	-32.51	-27.24	-17.67	-2.83	12.01	21.58	26.85	31.70
66	-46.44	-36.60	-31.83	-26.65	-17.23	-2.63	11.98	21.39	26.58	31.35
67	-45.24	-35.62	-30.96	-25.89	-16.69	-2.41	11.87	21.07	26.14	30.80
68	-44.34	-34.88	-30.30	-25.31	-16.25	-2.20	11.85	20.91	25.90	30.48
69	-43.16	-33.91	-29.44	-24.56	-15.71	-1.99	11.73	20.58	25.45	29.93
70	-42.24	-33.15	-28.75	-23.96	-15.26	-1.78	11.71	20.40	25.19	29.59

TABLE 9.3. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS

75 DEGREE FLIGHT AZIMUTH

MARCH

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.59	-9.00	-7.77	-6.38	-3.91	-0.05	3.78	6.26	7.02	8.87	11.46
1	-17.64	-13.50	-11.49	-9.31	-5.34	0.81	6.96	10.02	13.11	15.11	19.20
2	-18.37	-14.36	-12.42	-10.31	-6.47	-0.52	5.43	9.76	11.37	13.32	17.32
3	-20.81	-16.47	-14.37	-12.08	-7.92	-1.43	4.96	7.11	11.40	13.50	17.34
4	-24.12	-19.31	-16.98	-14.44	-9.83	-2.68	4.47	9.08	11.52	13.95	18.76
5	-26.30	-21.23	-18.73	-16.11	-11.25	-3.73	3.80	8.65	11.32	13.78	19.45
6	-28.89	-23.38	-20.72	-17.82	-12.55	-4.38	3.79	9.06	11.56	14.63	20.13
7	-32.10	-26.04	-23.11	-19.91	-14.12	-5.12	3.37	9.66	12.35	15.79	21.35
8	-34.72	-28.25	-25.12	-21.72	-15.53	-5.94	3.65	9.84	13.24	16.37	22.84
9	-41.31	-33.61	-29.89	-25.83	-18.47	-7.05	4.38	11.74	15.60	19.52	27.22
10	-47.20	-38.42	-34.17	-29.54	-21.14	-8.12	4.91	13.31	17.44	22.19	30.56
11	-53.55	-43.62	-38.82	-33.59	-24.09	-9.35	5.38	14.88	20.11	24.72	34.34
12	-52.17	-42.70	-38.12	-33.12	-24.06	-10.01	4.04	13.10	18.09	22.66	32.14
13	-46.81	-38.53	-34.52	-30.15	-22.23	-9.94	2.35	10.28	14.64	18.66	26.94
14	-39.50	-32.72	-29.44	-25.87	-19.38	-9.32	0.74	7.23	10.40	14.09	20.86
15	-34.73	-28.71	-25.79	-22.52	-16.35	-7.92	1.02	6.79	9.95	12.88	18.90
16	-30.18	-24.90	-22.34	-19.56	-14.51	-6.67	1.16	6.22	9.00	11.56	16.84
17	-25.88	-21.21	-18.94	-16.48	-12.00	-5.07	1.87	6.35	8.31	11.07	15.75
18	-21.11	-17.23	-15.35	-13.30	-9.58	-3.61	1.96	5.68	7.72	9.61	13.49
19	-16.51	-13.35	-11.81	-10.14	-7.11	-2.42	2.28	5.31	6.38	8.52	11.63
20	-13.79	-11.01	-9.66	-8.20	-5.54	-1.41	2.72	5.38	6.55	8.19	10.97
21	-12.51	-9.91	-8.64	-7.77	-4.73	-0.91	2.96	5.45	6.03	7.69	10.63
22	-12.28	-9.62	-8.33	-6.93	-4.38	-0.43	3.51	6.06	7.46	8.75	11.41
23	-11.61	-9.04	-7.80	-6.45	-3.99	-0.19	3.62	6.08	7.43	8.67	11.24
24	-11.59	-9.35	-8.07	-6.68	-4.16	-0.23	3.69	6.22	7.61	8.89	11.53
25	-11.46	-8.99	-7.80	-6.43	-4.13	-0.47	3.20	5.56	6.36	8.05	10.52
26	-11.72	-9.26	-8.07	-6.78	-4.43	-0.78	2.86	5.71	6.51	7.69	10.15
27	-13.10	-10.36	-9.04	-7.69	-4.97	-0.91	3.16	5.78	7.22	8.55	11.29
28	-4.60	-6.40	-5.29	-4.08	-1.90	1.50	4.89	7.08	8.28	9.39	11.68
29	-4.68	-7.21	-6.02	-4.73	-2.39	1.24	4.87	7.22	8.51	9.69	12.14
30	-11.60	-8.84	-7.57	-6.14	-3.51	0.50	4.53	7.14	8.57	9.89	12.60
31	-13.66	-10.66	-9.21	-7.63	-4.76	-0.32	4.13	7.00	8.58	10.03	13.02
32	-16.31	-12.95	-11.33	-9.56	-6.35	-1.37	3.61	6.82	8.58	10.21	13.56
33	-19.33	-15.53	-13.69	-11.69	-8.06	-2.42	3.21	6.84	8.85	10.68	14.48
34	-23.27	-18.72	-16.51	-14.11	-9.75	-3.54	3.77	8.13	10.53	12.74	17.29
35	-28.51	-22.90	-20.19	-17.23	-11.96	-3.54	4.79	10.16	13.12	15.83	21.44
36	-27.43	-22.80	-19.38	-16.52	-11.32	-3.27	4.79	9.98	12.84	15.47	20.90
37	-26.45	-21.27	-18.75	-16.02	-11.05	-3.35	4.35	9.31	12.05	14.56	19.75
38	-29.01	-23.44	-20.74	-17.81	-12.48	-4.21	4.05	9.38	12.32	15.02	20.59
39	-29.60	-23.26	-20.28	-18.26	-12.47	-4.50	3.87	9.27	12.24	14.97	20.61
40	-30.74	-24.48	-21.68	-18.65	-13.13	-4.57	3.99	9.50	12.54	15.33	21.10
41	-33.88	-27.00	-23.88	-20.48	-14.31	-4.75	4.81	10.98	14.38	17.50	23.94
42	-32.83	-25.79	-22.76	-19.47	-13.50	-4.24	5.03	11.00	14.29	17.31	23.55
43	-29.26	-23.45	-20.63	-17.57	-12.00	-3.37	5.27	10.83	13.90	16.71	22.53
44	-27.21	-21.69	-19.01	-16.10	-10.81	-2.61	5.59	10.87	13.79	16.46	21.99
45	-25.88	-20.56	-17.98	-15.17	-10.07	-2.17	5.74	10.84	13.65	16.23	21.55
46	-25.69	-20.35	-17.76	-14.94	-9.83	-1.90	6.04	11.15	13.97	16.55	21.90
47	-24.73	-19.46	-16.90	-14.12	-9.07	-1.24	6.59	11.64	14.42	16.98	22.26
48	-24.11	-19.02	-16.55	-13.87	-9.00	-1.45	6.10	11.98	13.66	16.12	21.21
49	-25.03	-20.55	-17.89	-15.00	-9.75	-1.61	6.53	11.78	14.67	17.33	22.82
50	-25.74	-20.43	-17.85	-15.05	-9.96	-2.08	5.81	10.90	13.70	16.27	21.58
51	-26.95	-21.56	-18.95	-16.11	-10.94	-2.94	4.38	10.23	13.07	15.68	21.07
52	-28.34	-22.83	-20.16	-17.26	-11.98	-3.80	5.66	12.57	15.23	20.75	26.72
53	-27.34	-22.39	-19.99	-17.39	-12.65	-5.31	2.03	6.77	9.38	11.77	16.72
54	-28.64	-23.70	-21.20	-18.49	-13.56	-5.92	1.72	6.64	9.35	11.85	16.99
55	-29.75	-24.47	-21.92	-19.14	-14.09	-6.26	1.57	6.62	9.40	11.96	17.23
56	-28.25	-23.19	-20.74	-18.07	-13.23	-5.72	1.79	6.63	9.30	11.75	16.81
57	-30.90	-25.06	-22.21	-19.13	-13.52	-4.83	3.86	9.47	12.55	15.39	21.25
58	-33.62	-28.18	-24.45	-20.37	-16.37	-5.89	5.99	13.39	17.46	21.21	28.94
59	-39.89	-31.68	-27.58	-23.13	-19.11	-2.67	9.76	17.78	22.19	26.25	34.63
60	-40.53	-30.69	-26.16	-21.24	-17.29	1.57	15.44	24.39	29.31	33.84	43.18
61	-34.68	-28.51	-22.55	-18.24	-10.41	1.73	13.86	21.69	26.00	29.96	38.14
62	-34.16	-28.07	-22.15	-17.88	-10.14	1.87	13.88	21.62	25.89	29.81	37.90
63	-33.90	-28.02	-22.32	-17.67	-9.95	2.02	14.00	21.72	25.97	29.87	37.94
64	-33.37	-27.39	-21.53	-17.32	-9.68	2.17	14.01	21.65	25.86	29.72	37.70
65	-32.89	-26.99	-21.12	-16.96	-9.40	2.32	14.04	21.60	25.76	29.58	37.48
66	-32.31	-26.50	-20.72	-16.60	-9.12	2.47	14.07	21.54	25.66	29.44	37.25
67	-31.79	-26.06	-20.32	-16.25	-8.85	2.62	14.08	21.48	25.55	29.29	37.02
68	-31.33	-25.83	-20.10	-16.04	-8.67	2.77	14.20	21.58	25.64	29.37	37.07
69	-31.82	-25.98	-19.71	-15.69	-8.40	2.91	14.22	21.51	25.53	29.22	36.84
70	-30.49	-22.96	-19.31	-15.33	-8.12	3.06	14.25	21.46	25.43	29.08	36.62

TABLE 9.4. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

APRIL

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.47	-7.18	-6.07	-4.87	-2.68	.72	4.12	5.31	7.52	8.63	10.92
1	-15.82	-12.06	-10.24	-8.26	-4.65	.93	6.51	10.11	12.10	13.92	17.68
2	-16.61	-13.04	-11.31	-9.43	-6.01	-7.71	4.59	8.01	9.89	11.62	15.19
3	-20.48	-16.38	-14.39	-12.23	-8.30	-2.21	3.83	7.81	9.98	11.47	16.07
4	-22.90	-18.49	-16.35	-14.03	-9.81	-3.27	3.28	7.50	9.82	11.96	16.37
5	-24.09	-19.61	-17.44	-15.09	-10.79	-4.14	2.51	6.90	9.17	11.33	15.81
6	-26.79	-21.94	-19.59	-17.02	-12.37	-5.16	2.05	6.70	9.26	11.61	16.47
7	-29.86	-24.57	-22.01	-19.22	-14.15	-6.30	1.86	6.62	9.41	11.98	17.27
8	-33.20	-27.43	-24.64	-21.55	-16.07	-7.50	1.07	6.59	9.63	12.43	18.20
9	-37.63	-31.09	-27.92	-24.48	-18.22	-8.51	1.20	7.46	10.90	14.07	20.61
10	-42.49	-35.15	-31.60	-27.73	-20.70	-9.81	1.09	8.11	11.98	15.53	22.87
11	-48.44	-40.11	-36.07	-31.68	-23.70	-11.32	1.05	9.03	13.43	17.46	25.80
12	-52.46	-43.53	-39.21	-34.50	-25.95	-12.71	.53	9.08	13.78	18.10	27.03
13	-50.11	-41.84	-37.84	-33.43	-25.58	-13.31	-1.05	8.66	11.22	15.22	23.48
14	-43.89	-36.82	-33.40	-29.67	-22.90	-12.41	-1.91	4.86	8.58	12.01	19.08
15	-35.91	-30.21	-27.45	-24.45	-18.99	-10.53	-2.07	3.39	6.39	9.15	14.85
16	-31.50	-26.40	-23.94	-21.25	-16.38	-8.82	-1.26	3.62	6.30	8.77	13.86
17	-25.38	-21.67	-19.58	-17.30	-13.27	-6.76	-1.36	3.77	6.05	8.14	12.85
18	-19.81	-16.42	-14.78	-13.00	-9.76	-4.73	.29	3.53	5.32	6.96	10.34
19	-15.00	-12.22	-10.87	-9.40	-6.74	-2.61	1.52	4.18	5.68	6.99	9.77
20	-12.91	-10.30	-9.04	-7.66	-5.17	-1.30	2.57	5.07	6.47	7.71	10.32
21	-10.65	-8.44	-7.37	-6.20	-4.09	-.81	2.47	4.59	5.75	6.82	9.03
22	-9.77	-7.62	-6.58	-5.44	-3.58	-.19	3.01	5.07	6.21	7.25	9.40
23	-9.64	-7.47	-6.42	-5.28	-3.21	.00	3.22	5.29	6.43	7.48	9.64
24	-9.56	-7.42	-6.38	-5.21	-3.19	-.01	3.17	5.23	6.36	7.40	9.54
25	-9.37	-7.30	-6.30	-5.21	-3.23	-.16	2.91	4.89	5.98	6.99	9.05
26	-9.43	-7.34	-6.33	-5.23	-3.24	-.15	2.95	4.94	6.04	7.05	9.14
27	-10.82	-8.43	-7.36	-6.12	-3.43	-.42	3.05	5.29	6.52	7.68	9.98
28	-8.87	-6.87	-5.88	-4.25	-2.85	1.36	4.77	6.88	8.19	9.30	11.80
29	-8.99	-6.89	-5.88	-4.37	-2.16	1.25	4.67	6.87	8.08	9.19	11.80
30	-10.63	-8.04	-6.79	-5.42	-2.94	.91	4.76	7.24	8.60	9.88	12.45
31	-11.25	-8.59	-7.30	-5.90	-3.35	.60	4.55	7.09	8.49	9.78	12.44
32	-13.53	-10.55	-9.11	-7.54	-4.70	-.28	4.13	6.98	8.54	9.93	12.96
33	-14.73	-9.26	-8.06	-6.76	-4.39	-.73	2.94	5.30	6.61	7.95	10.27
34	-15.93	-12.79	-11.27	-9.61	-6.61	-1.95	1.27	5.71	7.37	8.69	10.63
35	-18.53	-14.88	-13.12	-11.19	-7.70	-2.29	3.13	6.62	8.54	10.31	13.95
36	-21.87	-17.47	-15.34	-13.02	-8.80	-2.27	4.26	8.48	10.80	12.93	17.33
37	-22.14	-17.76	-15.68	-13.34	-9.14	-2.64	3.86	8.05	10.36	12.48	16.86
38	-23.40	-18.78	-16.55	-14.11	-9.69	-2.84	4.01	8.42	10.86	13.09	17.71
39	-22.72	-17.99	-15.71	-13.21	-8.69	-1.67	5.34	9.87	12.36	14.45	19.17
40	-22.77	-18.10	-15.84	-13.38	-8.91	-1.97	4.96	9.43	11.89	14.18	18.83
41	-19.20	-15.15	-13.19	-11.06	-7.19	-1.18	4.83	8.71	10.84	12.80	16.85
42	-19.43	-15.29	-13.29	-11.11	-7.15	-1.01	5.13	9.09	11.27	13.28	17.41
43	-19.87	-15.16	-13.02	-10.70	-6.98	.07	6.61	10.83	13.16	15.29	19.70
44	-20.28	-15.50	-13.19	-10.67	-6.10	1.00	8.09	12.66	15.18	17.49	22.27
45	-18.68	-14.06	-11.82	-9.38	-4.95	1.92	8.79	13.22	15.66	17.90	22.53
46	-19.77	-14.72	-12.27	-9.61	-4.78	2.72	10.21	15.04	17.70	20.15	25.20
47	-22.87	-16.69	-14.09	-11.25	-6.10	1.88	9.87	15.02	17.65	20.46	25.84
48	-21.84	-16.48	-14.04	-11.37	-6.53	.97	8.47	13.31	15.98	18.43	23.48
49	-22.62	-17.46	-14.95	-12.24	-7.30	.35	8.01	12.94	15.66	18.16	23.22
50	-21.22	-16.27	-13.88	-11.27	-6.53	.82	8.16	12.90	15.51	17.91	22.86
51	-19.88	-15.87	-12.78	-10.28	-5.75	1.27	8.30	12.83	15.32	17.52	22.38
52	-21.69	-16.53	-14.03	-11.31	-6.37	1.28	8.94	13.87	16.59	19.09	24.23
53	-21.41	-15.91	-13.98	-11.35	-6.55	.88	8.30	13.10	15.73	18.16	23.16
54	-19.88	-15.20	-12.95	-10.80	-6.05	.85	7.76	12.21	14.66	16.91	21.96
55	-20.75	-16.02	-13.73	-11.24	-6.72	.30	7.32	11.85	14.34	16.63	21.39
56	-21.95	-17.02	-14.64	-12.04	-7.32	-.01	7.30	12.02	14.61	17.00	21.93
57	-22.83	-17.90	-15.46	-12.81	-8.08	-.53	6.93	11.75	14.40	16.83	21.85
58	-20.46	-16.01	-13.38	-11.51	-6.30	-1.23	6.84	12.05	14.32	17.95	22.99
59	-22.75	-17.59	-15.09	-12.37	-7.42	.25	7.92	12.87	15.59	18.05	23.26
60	-20.28	-16.86	-14.75	-13.37	-9.22	.31	9.84	15.99	19.38	22.48	28.91
61	-20.78	-16.89	-14.78	-13.23	-9.78	.23	10.23	16.68	20.23	23.50	30.23
62	-23.86	-18.58	-15.33	-13.87	-9.55	.14	9.87	16.15	19.60	22.78	29.33
63	-20.55	-16.12	-13.81	-12.62	-9.47	.06	9.60	15.75	19.13	22.25	28.87
64	-27.83	-21.58	-18.86	-15.27	-9.29	-.03	9.24	15.22	18.51	21.53	27.77
65	-27.48	-21.27	-18.30	-15.07	-9.21	-.11	8.98	14.85	18.08	21.05	27.18
66	-26.98	-20.90	-18.00	-14.84	-9.10	-.20	8.70	14.44	17.60	20.51	26.51
67	-26.19	-20.37	-17.86	-14.49	-8.92	-.29	8.35	13.92	16.98	19.80	25.62
68	-25.72	-20.83	-17.27	-14.27	-8.82	-.36	8.09	13.54	16.85	19.30	25.00
69	-25.82	-19.88	-16.83	-13.92	-8.64	-.45	7.79	13.02	16.23	18.60	24.22
70	-24.87	-19.17	-16.56	-13.71	-8.55	-.54	7.48	12.64	15.49	18.10	23.80

TABLE 9.5. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

MAY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-6.34	-5.15	-4.29	-3.35	-1.64	1.01	3.66	5.37	6.31	7.17	8.35
1	-11.39	-8.59	-7.24	-5.77	-3.09	1.05	5.20	7.87	9.35	10.70	13.49
2	-13.05	-10.22	-8.84	-7.35	-4.64	-4.43	7.77	6.48	7.33	7.35	12.13
3	-14.47	-11.41	-9.93	-8.32	-5.40	-8.00	3.67	6.60	8.21	9.69	12.75
4	-16.51	-13.03	-11.41	-9.50	-6.31	-1.22	7.83	7.17	3.28	10.54	14.03
5	-18.30	-14.58	-12.78	-10.81	-7.25	-1.72	3.80	7.36	9.32	11.12	14.84
6	-21.13	-16.94	-14.83	-12.54	-8.57	-2.26	4.05	9.12	10.35	12.42	16.67
7	-23.74	-19.01	-16.72	-14.23	-9.70	-2.67	4.35	8.88	11.07	13.66	18.39
8	-26.97	-21.56	-18.94	-16.09	-10.91	-2.88	5.15	10.32	13.17	15.79	21.27
9	-31.68	-25.34	-22.28	-18.94	-12.87	-3.47	5.93	11.99	15.33	18.40	24.73
10	-36.20	-28.99	-25.40	-21.69	-14.73	-4.03	6.61	13.51	17.31	20.80	29.01
11	-41.17	-33.04	-29.11	-24.82	-17.04	-4.98	7.09	14.87	19.15	23.09	31.22
12	-45.27	-36.44	-32.17	-27.52	-19.07	-5.07	7.12	15.57	20.22	24.49	33.32
13	-46.03	-37.41	-33.23	-28.63	-20.42	-7.64	5.16	13.41	17.96	22.17	30.75
14	-40.80	-33.41	-29.33	-25.94	-19.37	-7.30	3.06	10.13	14.03	17.61	24.99
15	-33.40	-27.60	-24.78	-21.72	-16.18	-7.54	1.09	6.65	3.71	12.52	18.33
16	-26.94	-22.33	-20.10	-17.57	-13.26	-6.43	.41	4.81	7.24	9.47	14.03
17	-21.40	-17.70	-15.91	-13.95	-10.41	-4.91	.58	4.12	6.08	7.87	11.57
18	-16.43	-13.51	-12.07	-10.50	-7.65	-3.23	1.19	4.04	5.01	7.00	10.03
19	-12.21	-9.80	-8.63	-7.36	-5.06	-1.46	2.10	4.41	5.08	6.85	9.26
20	-8.44	-7.44	-6.47	-5.42	-3.51	-1.54	2.43	4.74	5.33	6.36	9.30
21	-7.32	-6.04	-5.13	-4.15	-2.35	.43	3.21	5.00	5.99	6.90	8.77
22	-6.14	-5.14	-4.10	-3.10	-1.19	.30	3.78	5.76	6.76	7.73	9.74
23	-7.54	-5.57	-4.62	-3.59	-1.71	1.20	4.12	5.99	7.03	7.98	9.94
24	-7.54	-5.54	-4.58	-3.52	-1.61	1.36	4.33	6.24	7.30	8.27	10.27
25	-8.17	-6.06	-5.03	-3.92	-1.99	1.25	4.39	6.42	7.53	8.56	10.64
26	-8.34	-6.14	-5.13	-3.93	-1.92	1.29	4.50	6.57	7.71	8.76	10.92
27	-8.92	-6.65	-5.56	-4.37	-2.20	1.16	4.52	6.69	7.98	8.97	11.24
28	-7.59	-5.36	-4.29	-3.12	-1.99	2.31	5.61	7.73	8.90	9.98	12.20
29	-9.11	-6.52	-5.27	-3.91	-1.44	2.40	6.24	8.71	10.08	11.33	13.91
30	-9.58	-6.90	-5.60	-4.19	-1.62	2.36	6.34	8.91	10.33	11.62	14.31
31	-11.07	-8.18	-6.78	-5.26	-2.50	1.79	6.07	8.83	10.35	11.75	14.64
32	-11.38	-8.38	-6.93	-5.35	-2.48	1.97	6.43	9.30	10.88	12.33	15.33
33	-13.04	-9.79	-8.22	-6.50	-3.39	1.43	6.25	9.35	11.07	12.64	15.89
34	-13.04	-9.85	-8.36	-6.70	-3.69	.99	5.67	8.68	10.39	11.87	15.02
35	-14.52	-11.09	-9.43	-7.63	-4.35	.74	5.82	9.10	10.90	12.56	15.99
36	-14.00	-10.73	-9.14	-7.41	-4.28	.59	5.45	8.58	10.31	11.90	15.17
37	-14.79	-11.13	-9.36	-7.43	-3.92	1.52	6.95	10.46	12.39	14.16	17.83
38	-14.05	-10.43	-8.67	-6.76	-3.30	2.08	7.46	10.93	12.84	14.59	18.21
39	-13.25	-9.75	-8.06	-6.21	-2.87	2.32	7.51	10.86	12.70	14.39	17.89
40	-14.02	-10.37	-8.61	-6.69	-3.20	2.20	7.61	11.10	13.02	14.78	18.43
41	-13.42	-9.81	-8.06	-6.15	-2.69	2.68	8.04	11.50	13.41	15.16	18.77
42	-10.19	-7.02	-5.48	-3.80	-1.76	3.95	8.67	11.71	13.39	14.93	18.10
43	-10.92	-7.33	-5.58	-3.69	-1.25	5.09	10.42	13.86	15.76	17.50	21.09
44	-11.06	-7.31	-5.49	-3.51	.08	5.66	11.23	14.82	16.80	18.62	22.37
45	-12.60	-8.40	-6.36	-4.14	-1.12	6.12	12.37	16.39	18.61	20.65	24.85
46	-13.37	-8.69	-6.72	-4.36	-.08	6.56	13.21	17.49	19.85	22.02	26.49
47	-11.99	-7.57	-5.43	-3.09	1.14	7.71	14.27	18.51	20.84	22.98	27.41
48	-12.94	-8.34	-6.11	-3.69	.71	7.53	14.36	18.76	21.18	23.41	28.00
49	-13.78	-8.93	-6.60	-4.05	.56	7.71	14.87	19.48	22.02	24.36	29.18
50	-11.98	-7.23	-4.93	-2.42	2.12	9.17	16.22	20.77	23.27	25.57	30.32
51	-12.06	-7.19	-4.83	-2.26	2.40	9.62	16.85	21.51	24.08	26.44	31.31
52	-14.07	-8.80	-6.25	-3.44	1.56	9.37	17.19	22.23	25.00	27.55	32.82
53	-15.15	-9.59	-6.89	-3.96	1.36	9.62	17.88	23.21	26.14	28.84	34.40
54	-13.47	-8.21	-5.66	-2.88	2.16	9.97	17.79	22.83	25.60	28.15	33.42
55	-13.41	-8.24	-5.74	-3.01	1.94	9.62	17.29	22.24	24.97	27.47	32.65
56	-16.31	-10.55	-7.76	-4.72	.80	9.36	17.92	23.44	26.47	29.27	35.03
57	-22.36	-12.25	-11.92	-8.05	-1.14	9.57	20.28	27.18	30.99	34.48	41.70
58	-25.61	-17.86	-14.11	-10.03	-2.61	8.88	20.38	27.80	31.88	35.63	43.38
59	-28.82	-19.10	-14.51	-10.60	-3.50	7.52	19.53	25.63	29.55	33.14	40.56
60	-30.38	-21.93	-17.83	-13.38	-5.29	7.26	19.81	27.91	32.36	36.46	44.91
61	-31.93	-22.47	-18.33	-13.82	-5.63	7.07	19.77	27.96	32.47	36.62	45.17
62	-28.78	-20.77	-16.30	-12.67	-5.01	6.88	18.77	26.43	30.65	34.53	42.54
63	-26.81	-19.29	-15.65	-11.68	-4.48	6.68	17.84	25.04	29.01	32.65	40.17
64	-24.83	-17.57	-14.19	-10.52	-3.85	6.49	16.83	23.50	27.17	30.54	37.51
65	-22.85	-16.07	-12.98	-9.52	-3.32	6.30	15.91	22.12	25.53	28.67	35.15
66	-20.31	-14.38	-11.50	-8.38	-2.70	6.10	14.91	20.59	23.71	26.58	32.52
67	-18.03	-12.65	-10.05	-7.21	-2.07	5.91	13.89	19.04	21.88	24.48	29.86
68	-16.06	-11.17	-8.80	-6.22	-1.54	5.71	12.97	17.65	20.23	22.60	27.49
69	-14.05	-9.66	-7.53	-5.21	-1.00	5.52	12.04	16.25	18.57	20.70	25.09
70	-11.81	-7.96	-6.10	-4.07	-.38	5.33	11.04	14.73	16.75	18.62	22.47

TABLE 9.6. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

JUNE

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-5.23	-4.56	-3.74	-2.86	-1.25	1.24	3.73	5.34	6.22	7.04	8.72
1	-9.11	-6.68	-5.50	-4.22	-1.90	1.71	5.32	7.64	8.92	10.10	12.53
2	-10.45	-7.93	-6.71	-5.43	-2.97	.77	4.51	6.93	8.26	9.49	12.00
3	-11.33	-8.69	-7.47	-6.02	-3.50	.41	4.32	6.85	8.24	9.51	12.15
4	-12.15	-9.40	-8.00	-6.61	-3.97	.12	4.21	6.35	8.30	9.53	12.39
5	-13.00	-10.14	-8.76	-7.25	-4.52	-.26	3.97	6.70	8.21	9.59	12.45
6	-14.01	-11.04	-9.60	-8.03	-5.18	-.77	3.64	6.49	8.00	9.50	12.47
7	-15.36	-12.15	-10.59	-8.96	-5.82	-1.06	3.71	6.79	8.48	10.04	13.25
8	-17.37	-13.75	-12.00	-10.03	-6.62	-1.25	4.13	7.50	9.51	11.20	14.89
9	-20.47	-16.21	-14.15	-11.91	-7.83	-1.51	4.61	8.88	11.13	13.19	17.45
10	-24.47	-19.39	-16.93	-14.25	-1.33	-1.85	5.69	10.55	13.23	15.69	20.77
11	-28.49	-22.63	-19.79	-16.71	-11.10	-7.41	6.29	11.89	14.99	17.82	23.67
12	-33.65	-26.83	-23.02	-20.06	-13.59	-3.57	6.46	12.92	16.49	19.70	26.51
13	-35.84	-28.91	-25.50	-21.90	-15.27	-4.99	5.30	11.92	15.58	18.94	25.87
14	-32.82	-26.80	-23.83	-20.71	-14.34	-6.00	2.35	8.71	11.83	14.31	20.07
15	-27.17	-22.65	-20.17	-17.68	-13.16	-7.15	.85	5.38	7.87	10.15	14.87
16	-20.01	-16.53	-14.95	-13.02	-9.63	-4.53	.63	3.95	5.72	7.47	10.94
17	-14.63	-11.92	-10.62	-9.20	-6.61	-7.60	1.40	3.99	5.41	6.72	9.42
18	-10.47	-8.34	-7.31	-6.16	-4.14	-.97	2.20	4.24	5.35	6.40	8.53
19	-7.74	-5.86	-4.98	-4.00	-2.23	.52	3.28	5.05	6.03	6.93	8.78
20	-6.50	-4.75	-3.90	-3.20	-1.31	1.29	3.89	5.57	6.49	7.34	9.09
21	-6.40	-4.71	-3.60	-2.60	-1.79	2.02	4.82	6.63	7.62	8.55	10.44
22	-7.06	-4.90	-3.86	-2.73	-1.67	2.53	5.72	7.78	8.32	9.96	12.11
23	-6.47	-4.37	-3.30	-2.21	-1.25	2.86	5.97	7.97	9.08	10.09	12.18
24	-5.54	-3.62	-2.63	-1.67	-.17	3.03	5.89	7.73	8.74	9.67	11.60
25	-5.63	-3.68	-2.74	-1.72	-.14	3.03	5.91	7.77	8.79	9.74	11.68
26	-6.34	-4.23	-3.21	-2.10	-.08	3.05	6.17	8.19	9.30	10.32	12.43
27	-6.50	-4.37	-3.34	-2.22	-.18	2.97	6.13	8.16	9.28	10.31	12.44
28	-5.92	-3.27	-2.23	-1.10	-.95	4.13	7.31	9.37	10.50	11.53	13.68
29	-6.04	-3.76	-2.66	-1.45	-.73	4.11	7.50	9.68	10.89	11.99	14.27
30	-5.59	-3.29	-2.18	-.96	1.24	4.65	8.07	10.27	11.48	12.60	15.90
31	-4.74	-2.52	-1.45	-.29	1.83	5.11	8.40	10.51	11.68	12.75	14.96
32	-6.45	-3.85	-2.60	-1.24	1.24	5.08	8.92	11.40	12.77	14.02	16.61
33	-5.13	-2.89	-1.81	-.62	1.52	4.84	8.17	10.31	11.49	12.58	14.82
34	-6.42	-3.91	-2.69	-1.37	1.03	4.76	8.48	10.88	12.21	13.42	15.93
35	-7.07	-4.45	-3.18	-1.80	-.71	4.60	8.49	11.00	12.38	13.65	16.28
36	-8.00	-5.68	-4.17	-2.53	-.46	5.09	9.72	12.70	14.35	15.86	18.98
37	-8.35	-5.16	-3.61	-1.93	1.12	5.85	10.59	13.64	15.32	16.86	20.05
38	-8.45	-5.13	-3.53	-1.78	1.40	6.32	11.24	14.41	16.16	17.76	21.08
39	-7.89	-4.62	-3.03	-1.31	1.83	6.69	11.55	14.68	16.41	17.99	21.27
40	-7.74	-4.55	-3.00	-1.31	1.75	6.49	11.24	14.30	15.98	17.53	20.73
41	-8.67	-5.23	-3.56	-1.75	1.54	6.65	11.76	15.06	16.87	18.54	21.98
42	-7.14	-3.87	-2.29	-.57	2.56	7.41	12.26	15.39	17.11	18.70	21.97
43	-6.92	-3.43	-1.74	-.10	3.44	8.62	13.80	17.14	18.98	20.67	24.16
44	-5.85	-2.15	-.36	1.59	5.13	10.62	16.11	19.65	21.60	23.39	27.09
45	-6.58	-2.46	-.46	1.71	5.65	11.77	17.88	21.82	23.99	25.99	30.11
46	-6.72	-2.31	-.18	2.15	6.37	12.92	19.47	23.69	26.01	28.15	32.56
47	-5.71	-1.24	.92	3.28	7.56	14.20	20.83	25.11	27.47	29.63	34.10
48	-5.60	-.89	1.47	3.97	8.53	15.59	22.65	27.21	29.71	32.02	36.78
49	-6.17	-1.03	1.47	4.18	9.10	16.74	24.38	29.30	32.02	34.51	39.65
50	-6.19	-.98	1.54	4.29	9.27	17.01	24.74	29.72	32.47	34.99	40.20
51	-5.76	-.59	1.91	4.64	9.59	17.27	24.94	29.89	32.62	35.12	40.29
52	-6.60	-1.32	1.23	4.02	9.07	16.91	24.75	29.80	32.59	35.14	40.43
53	-8.42	-2.79	-.06	2.91	8.30	16.65	25.01	30.40	33.36	36.09	41.72
54	-9.33	-3.64	-.68	2.12	7.58	16.03	24.48	29.93	32.93	35.69	41.39
55	-10.75	-4.83	-1.97	1.15	6.81	15.60	24.38	30.04	33.16	36.03	41.94
56	-11.93	-5.62	-2.86	-.36	6.20	15.27	24.33	30.18	33.40	36.35	42.46
57	-15.08	-8.43	-5.21	-1.71	4.65	14.52	24.39	30.75	34.25	37.47	44.12
58	-16.24	-9.57	-6.33	-2.81	3.58	13.49	23.40	29.79	33.31	36.54	43.22
59	-20.11	-12.89	-9.39	-5.58	1.33	12.06	22.78	29.69	33.50	37.00	44.22
60	-20.63	-13.22	-9.68	-5.82	1.18	12.03	22.89	29.89	33.75	37.29	44.60
61	-22.04	-14.50	-10.85	-6.87	.35	11.54	22.73	29.95	33.93	37.58	45.12
62	-20.43	-13.36	-9.94	-6.22	.59	11.03	21.52	28.28	32.00	35.42	42.44
63	-18.53	-12.01	-8.68	-5.40	.84	10.53	20.22	26.47	29.91	33.07	39.59
64	-18.82	-10.87	-7.94	-4.75	1.04	10.02	19.00	24.80	27.94	30.91	36.97
65	-15.80	-9.72	-7.02	-4.09	1.25	9.52	17.80	23.13	26.07	28.77	34.35
66	-13.68	-8.58	-6.11	-3.43	1.46	9.02	16.59	21.47	24.16	26.63	31.72
67	-12.07	-7.45	-5.21	-2.77	1.65	8.51	15.37	19.80	22.24	24.47	29.10
68	-10.16	-6.09	-4.11	-1.96	1.95	8.02	14.08	17.99	20.14	22.12	26.21
69	-8.57	-4.86	-3.21	-1.31	2.15	7.50	12.86	16.32	18.22	19.97	23.88
70	-6.95	-3.62	-2.30	-.65	2.35	7.01	11.66	14.66	16.31	17.83	20.96

TABLE 9.7. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

JULY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-4.40	-3.03	-2.37	-1.65	-1.34	1.63	3.71	5.02	5.74	6.40	7.77
1	-7.90	-5.56	-4.43	-3.20	-1.97	2.50	5.97	8.20	9.43	10.56	12.90
2	-8.70	-6.41	-5.23	-4.03	-1.88	1.52	4.93	7.13	8.39	9.45	11.75
3	-9.00	-6.71	-5.60	-4.40	-2.20	1.19	4.59	6.79	7.99	9.10	11.39
4	-10.12	-7.63	-6.42	-5.11	-2.72	.99	4.68	7.06	8.37	9.58	12.07
5	-11.01	-8.40	-7.14	-5.76	-3.26	.61	4.49	6.99	8.30	9.63	12.24
6	-12.28	-9.44	-8.07	-6.58	-3.86	.34	4.55	7.20	8.75	10.13	12.37
7	-12.89	-9.97	-8.55	-7.01	-4.22	.12	4.45	7.25	8.79	10.20	13.12
8	-13.95	-10.86	-9.37	-7.74	-4.79	-.22	4.36	7.31	8.94	10.43	13.51
9	-15.99	-12.54	-10.87	-9.06	-5.76	-.65	4.47	7.70	9.58	11.25	14.69
10	-18.22	-14.39	-12.54	-10.52	-6.85	-1.17	4.52	9.13	10.20	12.05	15.88
11	-20.66	-16.41	-14.38	-12.12	-8.00	-1.77	4.53	8.59	10.62	12.88	17.12
12	-23.30	-18.63	-16.36	-13.90	-9.43	-2.49	4.45	8.92	11.39	13.65	18.32
13	-26.12	-21.05	-18.59	-15.91	-11.06	-3.53	4.01	8.86	11.54	14.00	19.07
14	-29.51	-24.87	-21.63	-18.18	-13.74	-5.06	3.02	7.46	9.30	12.15	16.73
15	-33.08	-29.44	-25.60	-21.76	-16.27	-6.87	2.53	6.01	7.93	9.69	13.33
16	-37.30	-34.64	-30.30	-27.06	-19.41	-9.47	2.47	5.01	6.41	7.70	10.35
17	-42.14	-40.44	-36.88	-32.72	-23.61	-13.5	2.91	5.02	6.18	7.24	9.44
18	-47.59	-46.65	-43.72	-39.70	-28.85	-18.85	3.89	5.73	6.75	7.69	9.62
19	-53.92	-51.07	-48.32	-45.40	-35.12	-25.12	4.48	6.15	7.07	7.92	9.67
20	-60.71	-57.48	-54.78	-51.82	-42.40	-32.40	5.00	6.57	7.43	8.23	9.86
21	-68.65	-65.61	-62.67	-59.63	-50.69	-40.69	5.41	6.93	7.80	8.46	10.44
22	-77.66	-74.81	-71.87	-68.83	-58.89	-48.89	5.72	7.32	8.19	8.66	11.02
23	-87.83	-85.18	-82.24	-79.20	-68.26	-58.26	6.03	7.71	8.58	9.05	11.60
24	-99.26	-96.81	-93.87	-90.83	-79.89	-69.89	6.34	8.10	8.97	9.44	12.18
25	-112.05	-109.80	-106.86	-103.82	-92.88	-82.88	6.65	8.49	9.36	9.83	12.76
26	-126.29	-124.24	-121.30	-118.26	-107.32	-97.32	6.96	8.80	9.67	10.14	13.34
27	-142.08	-140.23	-137.29	-134.25	-123.31	-113.31	7.27	9.11	9.98	10.45	13.92
28	-159.52	-157.87	-154.93	-151.89	-140.95	-130.95	7.58	9.42	10.29	10.76	14.50
29	-178.71	-177.26	-174.32	-171.28	-160.34	-150.34	7.89	9.73	10.60	11.24	15.08
30	-199.75	-198.50	-195.56	-192.52	-181.58	-171.58	8.20	10.04	10.91	11.72	15.66
31	-222.74	-221.69	-218.75	-215.71	-204.77	-194.77	8.51	10.35	11.22	12.20	16.24
32	-247.78	-246.93	-244.00	-240.96	-229.92	-219.92	8.82	10.66	11.53	12.51	16.82
33	-274.97	-274.32	-271.39	-268.35	-257.31	-247.31	9.13	10.97	11.84	12.82	17.40
34	-304.41	-303.96	-301.03	-297.99	-286.95	-276.95	9.44	11.28	12.15	13.13	17.98
35	-336.20	-335.95	-333.02	-329.98	-318.94	-308.94	9.75	11.59	12.46	13.44	18.56
36	-370.44	-370.29	-367.36	-364.32	-353.28	-343.28	10.06	11.90	12.77	13.72	19.14
37	-407.23	-407.18	-404.25	-401.21	-390.17	-380.17	10.37	12.21	13.08	14.03	19.72
38	-446.67	-446.72	-443.79	-440.75	-429.71	-419.71	10.68	12.52	13.39	14.34	20.30
39	-488.86	-489.01	-486.08	-483.04	-472.00	-462.00	10.99	12.83	13.70	14.65	20.88
40	-533.90	-534.15	-531.22	-528.18	-517.14	-507.14	11.30	13.14	14.01	14.96	21.46
41	-581.94	-582.29	-579.36	-576.32	-565.28	-555.28	11.61	13.45	14.32	15.27	22.04
42	-633.08	-633.53	-630.60	-627.56	-616.52	-606.52	11.92	13.76	14.63	15.58	22.62
43	-687.42	-687.97	-685.04	-682.00	-670.96	-660.96	12.23	14.07	14.94	15.89	23.20
44	-745.06	-745.71	-742.78	-739.74	-728.70	-718.70	12.54	14.38	15.25	16.20	23.78
45	-806.00	-806.75	-803.82	-800.78	-789.74	-779.74	12.85	14.69	15.56	16.51	24.36
46	-870.34	-871.19	-868.26	-865.22	-854.18	-844.18	13.16	15.00	15.87	16.82	24.94
47	-938.18	-939.13	-936.20	-933.16	-922.12	-912.12	13.47	15.31	16.18	17.13	25.52
48	-1009.62	-1010.67	-1007.74	-1004.70	-993.66	-983.66	13.78	15.62	16.49	17.44	26.10
49	-1084.76	-1085.91	-1083.08	-1079.94	-1068.90	-1058.90	14.09	15.93	16.80	17.75	26.68
50	-1163.60	-1164.85	-1162.02	-1158.88	-1147.84	-1137.84	14.40	16.24	17.11	18.06	27.26
51	-1246.24	-1247.59	-1244.76	-1241.62	-1230.58	-1220.58	14.71	16.55	17.42	18.37	27.84
52	-1332.68	-1334.13	-1331.30	-1328.16	-1317.12	-1307.12	15.02	16.86	17.73	18.68	28.42
53	-1422.92	-1424.47	-1421.64	-1418.50	-1407.46	-1397.46	15.33	17.17	18.04	18.99	29.00
54	-1517.06	-1518.71	-1515.88	-1512.74	-1501.70	-1491.70	15.64	17.48	18.35	19.30	29.58
55	-1615.20	-1616.95	-1614.12	-1611.08	-1600.04	-1590.04	15.95	17.79	18.66	19.61	30.16
56	-1717.44	-1719.29	-1716.46	-1713.32	-1702.28	-1692.28	16.26	18.10	18.97	20.02	30.74
57	-1823.78	-1825.73	-1822.90	-1819.76	-1808.72	-1798.72	16.57	18.41	19.28	20.33	31.32
58	-1934.22	-1936.27	-1933.44	-1930.30	-1919.26	-1909.26	16.88	18.72	19.59	20.64	31.90
59	-2048.76	-2050.91	-2048.08	-2044.94	-2033.90	-2023.90	17.19	19.03	19.90	20.95	32.48
60	-2167.40	-2169.65	-2166.82	-2163.68	-2152.64	-2142.64	17.50	19.34	20.21	21.26	33.06
61	-2290.14	-2292.49	-2289.66	-2286.52	-2275.48	-2265.48	17.81	19.65	20.52	21.57	33.64
62	-2417.08	-2419.53	-2416.70	-2413.56	-2402.52	-2392.52	18.12	19.96	20.83	21.88	34.22
63	-2548.22	-2550.77	-2547.94	-2544.80	-2533.76	-2523.76	18.43	20.27	21.14	22.19	34.80
64	-2683.56	-2686.21	-2683.38	-2680.24	-2669.20	-2659.20	18.74	20.58	21.45	22.50	35.38
65	-2823.10	-2825.85	-2823.02	-2819.88	-2808.84	-2798.84	19.05	20.89	21.76	22.81	35.96
66	-2966.84	-2969.69	-2966.86	-2963.72	-2952.68	-2942.68	19.36	21.20	22.07	23.12	36.54
67	-3114.78	-3117.73	-3114.90	-3111.76	-3100.72	-3090.72	19.67	21.51	22.38	23.43	37.12
68	-3266.92	-3270.07	-3267.20	-3264.06	-3253.02	-3243.02	19.98	21.82	22.69	23.74	37.70
69	-3423.26	-3426.51	-3423.68	-3420.54	-3409.50	-3399.50	20.29	22.13	23.00	24.05	38.28
70	-3583.80	-3587.15	-3584.32	-3581.18	-3570.14	-3560.14	20.60	22.44	23.31	24.36	38.86

TABLE 9.8. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS

75 DEGREE FLIGHT AZIMUTH

AUGUST

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-5.26	-3.90	-3.24	-2.53	-1.23	.79	2.80	4.10	4.61	5.47	6.83
1	-8.38	-6.10	-5.00	-3.79	-1.61	1.78	5.16	7.35	8.55	9.65	11.94
2	-8.62	-6.43	-5.37	-4.21	-2.11	1.14	4.39	6.48	7.64	8.70	10.89
3	-9.08	-6.82	-5.73	-4.55	-2.39	.95	4.30	6.45	7.64	8.73	10.98
4	-9.36	-7.03	-5.90	-4.67	-2.44	1.02	4.48	6.71	7.94	9.07	11.40
5	-10.56	-8.00	-6.76	-5.41	-2.95	.85	4.65	7.10	8.45	3.69	12.25
6	-11.91	-8.74	-7.44	-6.04	-3.48	.48	4.44	7.00	8.41	9.70	12.37
7	-12.55	-9.67	-8.27	-6.75	-3.99	.29	4.57	7.33	8.35	10.25	13.13
8	-13.02	-10.31	-8.41	-7.77	-4.72	-.18	4.43	7.41	9.04	10.55	13.66
9	-15.64	-12.24	-10.53	-8.79	-5.54	-.48	4.57	7.93	9.62	11.27	14.67
10	-18.95	-14.31	-12.95	-10.82	-6.94	-.94	5.07	8.24	11.07	13.03	17.08
11	-21.83	-17.21	-14.97	-12.53	-8.10	-1.24	5.63	10.05	12.43	14.73	19.36
12	-24.89	-19.71	-17.20	-14.47	-9.51	-1.83	5.86	10.82	13.55	16.06	21.24
13	-25.33	-21.04	-18.47	-15.68	-10.60	-2.74	5.13	10.20	12.99	15.56	20.86
14	-22.56	-18.15	-16.02	-13.69	-9.47	-2.92	3.63	7.25	10.17	12.31	16.72
15	-15.71	-12.59	-11.08	-9.43	-6.45	-1.32	2.91	7.44	9.57	11.27	12.09
16	-11.13	-8.77	-7.62	-6.38	-4.11	-.60	2.91	5.18	6.43	7.57	9.94
17	-8.47	-6.45	-5.47	-4.41	-2.47	.53	3.53	6.53	7.41	7.51	9.53
18	-7.06	-5.16	-4.23	-3.22	-1.40	1.44	4.27	6.10	7.10	8.03	9.94
19	-5.24	-3.57	-2.77	-1.89	-.30	2.16	4.63	6.22	7.10	7.90	9.56
20	-4.22	-2.61	-1.88	-.98	.55	2.94	5.32	6.86	7.71	8.49	10.09
21	-4.14	-2.44	-1.60	-.68	.98	3.56	6.15	7.91	8.73	9.57	11.31
22	-4.58	-2.64	-1.71	-.69	1.17	4.04	6.91	8.77	9.79	10.72	12.65
23	-4.29	-2.34	-1.39	-.37	1.50	4.40	7.29	9.16	10.18	11.13	13.08
24	-3.78	-1.90	-.99	-.00	1.81	4.59	7.38	9.18	10.17	11.08	12.96
25	-3.81	-1.92	-1.00	-.01	1.80	4.61	7.41	9.22	10.22	11.13	13.02
26	-4.51	-2.53	-1.57	-.53	1.37	4.31	7.25	9.15	10.19	11.15	13.13
27	-4.94	-2.89	-1.89	-.81	1.15	4.19	7.23	9.19	10.27	11.27	13.31
28	-3.60	-1.67	-.73	-.29	2.13	5.00	7.87	9.72	10.74	11.67	13.61
29	-5.91	-3.42	-2.21	-.89	1.90	5.20	8.90	11.29	12.61	13.81	16.31
30	-4.80	-2.38	-1.21	-.07	2.38	5.97	9.57	11.88	13.16	14.33	16.75
31	-5.04	-2.37	-1.04	-.33	2.88	6.84	10.80	13.35	14.76	16.05	18.71
32	-6.19	-3.18	-1.72	-.13	2.75	7.22	11.69	14.57	16.16	17.62	20.63
33	-4.60	-1.97	-.70	.68	3.20	7.10	11.00	13.51	14.90	16.17	18.80
34	-8.14	-4.72	-3.05	-1.25	2.03	7.11	12.20	15.48	17.28	18.94	22.37
35	-8.63	-5.22	-3.57	-1.78	1.48	6.54	11.60	14.86	16.66	18.31	21.71
36	-7.87	-4.51	-2.89	-1.12	2.10	7.08	12.06	15.27	17.04	18.66	22.02
37	-8.61	-5.08	-3.37	-1.51	1.87	7.11	12.35	15.72	17.58	19.29	22.82
38	-9.61	-5.65	-3.78	-1.65	2.14	8.01	13.88	17.67	19.75	21.67	25.62
39	-8.19	-4.61	-2.87	-.98	2.45	7.76	13.08	16.51	18.40	20.14	23.72
40	-9.98	-6.14	-4.28	-2.25	1.43	7.14	12.85	16.53	18.55	20.42	24.26
41	-11.43	-7.31	-5.31	-3.14	.80	6.92	13.04	16.98	19.15	21.15	25.27
42	-11.35	-7.15	-5.11	-2.89	1.14	7.39	13.63	17.66	19.88	21.92	26.13
43	-9.56	-5.42	-3.41	-1.23	2.73	8.88	15.02	18.99	21.17	23.18	27.32
44	-10.80	-6.09	-3.81	-1.33	3.17	10.16	17.14	21.65	24.13	26.41	31.11
45	-10.21	-5.36	-3.01	-.45	4.19	11.39	18.60	23.24	25.80	28.15	33.00
46	-11.35	-5.98	-3.38	-.54	4.60	12.57	20.55	25.69	28.52	31.12	36.49
47	-13.67	-7.57	-4.61	-1.40	4.44	13.50	22.56	28.40	31.62	34.57	40.68
48	-12.07	-6.34	-3.5E	-.53	4.96	13.47	21.99	27.48	30.50	33.28	39.02
49	-12.76	-7.03	-4.26	-1.24	4.23	12.73	21.22	26.70	29.72	32.49	36.21
50	-15.49	-9.17	-6.12	-2.79	3.25	12.62	21.99	28.04	31.37	34.42	40.74
51	-14.32	-8.10	-5.08	-1.80	4.16	13.41	22.65	28.61	31.89	34.91	41.14
52	-14.31	-7.97	-4.90	-1.56	4.51	13.92	23.33	29.40	32.74	35.81	42.15
53	-17.35	-10.50	-7.19	-3.58	2.97	13.14	23.30	29.85	33.46	36.78	43.62
54	-18.61	-11.57	-8.16	-4.45	2.29	12.74	23.19	29.93	33.64	37.05	44.09
55	-21.78	-14.15	-10.45	-6.42	.89	12.22	23.56	30.87	34.89	38.59	46.22
56	-21.63	-14.38	-10.88	-7.06	-.13	10.62	21.37	28.30	32.12	35.63	42.87
57	-26.67	-18.52	-14.57	-10.27	-2.47	9.63	21.73	29.54	33.83	37.78	45.93
58	-31.47	-22.58	-18.07	-13.17	-4.28	9.52	23.32	32.22	37.12	41.62	50.92
59	-31.18	-21.90	-17.41	-12.52	-3.63	10.14	23.92	32.80	37.70	42.19	51.47
60	-35.22	-24.36	-19.10	-13.38	-2.98	13.14	29.26	39.65	45.38	50.64	61.50
61	-32.39	-22.24	-17.33	-11.98	-2.27	12.79	27.85	37.57	42.91	47.83	57.97
62	-31.76	-21.84	-17.03	-11.80	-2.29	12.44	27.18	36.68	41.92	46.72	56.65
63	-31.15	-21.44	-16.73	-11.62	-2.32	12.09	26.81	35.80	40.92	45.62	55.33
64	-30.56	-21.06	-16.46	-11.45	-2.36	11.74	25.84	34.94	39.94	44.54	54.04
65	-30.30	-20.84	-16.40	-11.47	-2.51	11.39	25.29	34.26	39.19	43.73	53.09
66	-29.79	-20.63	-16.19	-11.35	-2.58	11.03	24.64	33.42	38.25	42.69	51.86
67	-29.31	-20.33	-16.18	-11.25	-2.68	10.88	24.02	32.62	37.35	41.70	50.68
68	-28.88	-20.07	-16.01	-11.16	-2.74	10.33	23.40	31.83	36.47	40.74	49.54
69	-28.49	-19.88	-16.06	-11.11	-2.84	9.99	22.81	31.08	35.63	39.82	48.46
70	-28.13	-19.68	-16.08	-11.07	-2.96	9.63	22.22	30.34	34.81	38.92	47.48

TABLE 9.9. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

SEPTEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.97	-6.14	-5.26	-4.30	-2.55	.15	2.86	4.60	5.36	6.45	8.27
1	-13.72	-10.44	-8.84	-7.11	-3.96	.92	5.80	8.95	10.69	12.27	15.56
2	-13.32	-10.19	-8.67	-7.01	-4.01	.65	5.31	8.31	9.81	11.45	14.52
3	-13.10	-10.04	-8.56	-6.95	-4.02	.52	5.67	8.00	9.36	11.09	14.15
4	-12.88	-9.90	-8.45	-6.89	-4.03	.33	4.81	7.67	8.28	10.68	13.65
5	-13.78	-10.66	-9.15	-7.58	-4.51	.13	4.77	7.76	8.41	10.92	14.05
6	-15.10	-11.73	-10.11	-8.33	-5.12	-.13	4.37	8.08	8.32	11.42	14.42
7	-16.09	-12.52	-10.79	-8.91	-5.49	-.18	5.12	8.54	10.42	12.15	15.72
8	-17.66	-13.80	-11.93	-9.99	-6.19	-.46	5.27	8.97	11.42	12.81	16.74
9	-19.45	-15.24	-13.20	-10.98	-6.96	-.71	5.53	9.56	11.77	13.81	18.02
10	-22.68	-17.47	-15.54	-13.01	-9.40	-1.27	5.97	10.47	13.00	15.33	20.14
11	-26.11	-20.67	-18.03	-15.17	-9.96	-1.68	6.19	11.40	14.27	16.91	22.35
12	-29.85	-23.76	-20.81	-17.60	-11.77	-2.73	6.31	12.15	15.36	18.31	24.42
13	-32.27	-25.78	-22.67	-19.21	-10.99	-3.35	6.29	12.51	15.83	19.64	25.57
14	-31.07	-24.90	-21.92	-18.67	-12.77	-3.62	5.52	11.42	14.67	17.66	23.32
15	-24.31	-19.49	-17.16	-14.62	-10.01	-2.86	4.29	8.80	11.44	13.78	18.59
16	-16.65	-13.33	-11.72	-9.97	-6.73	-1.86	3.07	6.25	8.00	9.60	12.93
17	-11.70	-9.20	-7.99	-6.67	-4.28	-.57	3.14	5.53	6.35	8.06	10.56
18	-8.77	-6.73	-5.74	-4.67	-2.71	-.32	3.35	5.30	6.38	7.37	9.41
19	-6.72	-4.99	-4.16	-3.24	-1.59	-.28	3.55	5.20	6.11	6.95	8.68
20	-5.55	-4.33	-3.15	-2.23	-.74	1.66	4.06	5.61	6.47	7.25	8.37
21	-5.38	-4.66	-2.82	-1.91	-.26	2.30	4.86	6.52	7.43	8.36	9.99
22	-5.19	-4.44	-2.60	-1.68	-.00	2.59	5.19	6.86	7.78	8.63	10.38
23	-4.89	-4.16	-2.33	-1.42	-.23	2.79	5.35	7.01	7.91	8.75	10.48
24	-5.17	-4.40	-2.54	-1.61	-.09	2.72	5.34	7.04	7.97	8.82	10.60
25	-5.97	-4.03	-3.09	-2.07	-.21	2.66	5.54	7.39	8.42	9.35	11.23
26	-5.82	-3.96	-3.06	-2.07	-.29	2.48	5.25	7.03	8.01	8.92	10.79
27	-7.37	-5.17	-4.11	-2.95	-.85	2.41	5.67	7.77	8.33	9.39	12.19
28	-6.75	-4.58	-3.52	-2.37	-.29	2.94	6.18	8.26	9.41	10.46	12.64
29	-6.66	-4.43	-3.34	-2.16	-.02	3.30	6.61	8.76	9.93	11.02	13.25
30	-8.72	-6.02	-4.70	-3.27	-.66	3.38	7.41	10.02	11.45	12.77	15.49
31	-6.96	-4.44	-3.21	-1.86	-.54	4.29	8.05	10.47	11.80	13.02	15.55
32	-8.60	-5.65	-4.22	-2.67	-.16	4.54	8.92	11.75	13.30	14.72	17.69
33	-7.34	-4.64	-3.34	-1.92	-.66	4.66	8.66	11.28	12.66	13.96	16.66
34	-8.68	-5.82	-4.44	-2.94	-.20	4.03	8.27	11.00	12.51	13.99	16.75
35	-11.01	-7.72	-6.13	-4.40	-1.25	3.62	8.50	11.65	13.38	14.97	18.26
36	-12.81	-9.04	-7.31	-5.43	-1.01	3.30	8.60	12.02	13.90	15.63	19.20
37	-12.46	-8.95	-7.25	-5.40	-.04	3.17	8.39	11.74	13.59	15.29	18.80
38	-12.81	-9.23	-7.50	-5.61	-2.19	3.12	8.43	11.85	13.73	15.47	19.04
39	-14.36	-10.36	-8.43	-6.33	-.51	3.42	9.34	13.17	15.27	17.20	21.20
40	-15.92	-11.31	-9.26	-7.03	-2.99	3.29	9.56	13.61	15.84	17.88	22.11
41	-17.76	-13.21	-11.00	-8.60	-4.24	2.52	9.28	13.64	16.04	18.25	22.80
42	-20.11	-14.13	-12.72	-10.10	-5.33	2.05	9.44	14.20	16.82	19.23	24.21
43	-19.39	-14.25	-11.81	-9.12	-4.23	3.34	10.92	15.81	18.50	20.97	26.08
44	-20.66	-15.00	-12.26	-9.28	-3.86	4.55	12.95	18.37	21.35	24.09	29.76
45	-20.41	-14.82	-12.11	-9.16	-3.80	4.50	12.80	18.16	21.11	23.81	29.41
46	-20.04	-14.25	-11.51	-8.49	-2.99	5.53	14.06	19.56	22.58	25.36	31.11
47	-15.98	-11.06	-8.68	-6.08	-1.37	5.94	13.25	17.96	20.55	22.94	27.86
48	-14.82	-10.23	-7.98	-5.53	-1.07	5.83	12.74	17.20	19.65	21.90	26.56
49	-14.73	-9.97	-7.66	-5.15	-.59	6.48	13.55	18.11	20.62	22.93	27.69
50	-15.59	-10.74	-8.39	-5.83	-1.18	6.02	13.22	17.87	20.43	22.78	27.83
51	-16.71	-11.65	-9.19	-6.52	-1.68	5.84	13.36	18.21	20.88	23.34	28.40
52	-18.84	-11.41	-8.88	-6.12	-1.12	6.64	14.40	19.40	22.16	24.69	29.91
53	-15.33	-10.22	-7.74	-5.05	-.15	7.43	15.02	19.92	22.61	25.09	30.20
54	-18.46	-12.75	-9.99	-6.98	-1.51	6.96	15.44	20.90	23.91	26.68	32.38
55	-22.33	-15.99	-12.92	-9.58	-3.51	5.90	15.31	21.38	24.72	27.79	34.13
56	-22.57	-15.08	-12.94	-9.52	-3.31	6.32	15.96	22.17	25.59	28.73	35.22
57	-22.27	-15.78	-12.68	-9.22	-3.01	6.62	16.25	22.46	25.88	29.02	35.51
58	-22.94	-16.12	-12.82	-9.23	-2.70	7.42	17.54	24.07	27.66	30.96	37.78
59	-18.43	-12.62	-9.81	-6.75	-1.19	7.42	16.04	21.59	24.65	27.46	33.27
60	-24.33	-18.03	-14.96	-11.61	-5.53	3.90	13.34	19.42	22.77	25.84	32.20
61	-23.28	-17.18	-14.28	-11.03	-5.20	3.82	12.85	18.67	21.88	24.82	30.91
62	-22.70	-16.76	-13.89	-10.76	-5.08	3.73	12.54	18.22	21.34	24.22	30.15
63	-22.42	-16.57	-13.73	-10.65	-5.05	3.64	12.33	17.93	21.01	23.85	29.70
64	-21.86	-16.15	-13.39	-10.38	-4.92	3.54	12.01	17.47	20.48	23.24	28.94
65	-21.33	-15.76	-13.07	-10.13	-4.81	3.45	11.72	17.04	19.98	22.67	28.24
66	-20.80	-15.37	-12.74	-9.88	-4.69	3.37	11.42	16.62	19.48	22.11	27.53
67	-20.24	-14.96	-12.40	-9.62	-4.56	3.27	11.11	16.16	18.94	21.50	26.78
68	-19.95	-14.76	-12.24	-9.50	-4.53	3.19	10.90	15.87	18.61	21.13	26.32
69	-19.39	-14.34	-11.90	-9.24	-4.40	3.09	10.58	15.42	18.08	20.52	25.57
70	-18.86	-13.95	-11.57	-8.99	-4.29	3.00	10.29	14.99	17.58	19.96	24.87

TABLE 9.10. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

OCTOBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.01	-7.99	-7.02	-5.96	-4.03	-1.05	1.94	3.86	4.92	5.90	7.91
1	-15.21	-12.01	-10.46	-8.70	-5.72	-2.97	3.78	6.84	8.53	10.08	13.27
2	-14.12	-11.09	-9.62	-8.02	-5.12	-2.62	3.88	6.78	8.38	9.95	12.89
3	-14.79	-11.61	-10.07	-8.40	-5.35	-2.63	4.09	7.13	8.81	10.35	13.53
4	-15.88	-12.51	-10.87	-9.09	-5.86	-2.85	4.17	7.40	9.13	10.82	14.19
5	-17.83	-14.12	-12.32	-10.36	-6.81	-1.31	4.20	7.75	9.67	11.51	15.22
6	-20.19	-16.02	-14.00	-11.80	-7.91	-1.62	4.56	8.56	10.75	12.77	16.94
7	-23.42	-18.63	-16.32	-13.80	-9.22	-2.12	4.98	9.56	12.08	14.40	19.18
8	-26.98	-21.51	-18.85	-15.97	-10.72	-2.59	5.54	10.78	13.67	16.32	21.80
9	-31.73	-25.29	-22.16	-18.70	-12.59	-3.02	6.55	12.72	16.12	19.24	25.69
10	-37.40	-29.75	-25.04	-22.01	-14.68	-3.32	8.04	15.37	19.40	23.11	30.76
11	-43.09	-34.32	-28.07	-25.44	-17.04	-4.02	9.00	17.40	22.03	26.28	35.05
12	-48.88	-38.63	-32.15	-27.27	-18.42	-4.63	9.05	17.90	22.78	27.26	36.51
13	-42.97	-36.56	-30.48	-26.05	-17.99	-5.50	6.99	15.04	19.44	23.55	31.97
14	-36.40	-29.49	-26.15	-22.51	-15.89	-5.64	4.62	11.23	14.88	18.22	25.13
15	-28.87	-23.44	-20.82	-17.96	-12.77	-4.73	3.32	8.51	11.36	13.99	19.41
16	-22.19	-19.01	-15.93	-13.78	-9.78	-3.57	2.64	6.64	8.95	10.97	15.05
17	-15.62	-12.58	-11.10	-9.50	-6.59	-2.08	2.43	5.34	6.95	8.42	11.46
18	-11.53	-9.21	-8.08	-6.86	-4.63	-1.18	2.27	4.49	5.72	6.84	9.17
19	-9.59	-7.54	-6.54	-5.46	-3.50	-0.46	2.58	4.54	5.62	6.62	8.67
20	-8.39	-6.46	-5.52	-4.52	-2.68	-0.18	3.04	4.88	5.89	6.82	9.75
21	-7.62	-6.00	-5.11	-4.15	-2.41	-0.29	3.00	4.74	5.70	6.58	8.40
22	-6.54	-6.55	-5.59	-4.55	-2.65	-0.23	3.23	5.12	6.17	7.13	9.11
23	-6.07	-6.15	-5.22	-4.21	-2.37	-0.47	3.32	5.16	6.17	7.10	9.02
24	-6.30	-6.32	-5.35	-4.31	-2.40	-0.55	3.50	5.40	6.45	7.41	9.40
25	-6.85	-6.77	-5.77	-4.68	-2.70	-0.38	3.45	5.44	6.53	7.53	9.61
26	-9.47	-7.35	-6.32	-5.20	-3.17	-0.02	3.13	5.16	6.28	7.30	9.43
27	-10.42	-8.18	-7.09	-5.91	-3.77	-0.44	2.88	5.02	6.21	7.29	9.53
28	-8.97	-6.85	-5.82	-4.30	-2.08	1.37	4.82	7.05	8.27	9.40	11.72
29	-18.74	-14.11	-12.84	-10.46	-7.94	-0.95	4.85	7.36	8.74	10.02	12.64
30	-12.93	-9.06	-8.87	-5.57	-3.21	-0.45	4.12	6.48	7.78	8.97	11.44
31	-12.00	-8.19	-7.83	-5.34	-3.65	-0.52	4.70	7.39	8.88	10.24	13.05
32	-13.48	-10.41	-9.92	-7.31	-4.36	-0.19	4.75	7.69	9.31	10.80	13.67
33	-16.62	-13.02	-11.28	-9.38	-5.94	-0.59	4.75	8.19	10.09	11.83	15.43
34	-18.87	-15.18	-13.39	-11.44	-7.90	-2.42	3.07	6.60	8.55	10.34	14.04
35	-21.46	-17.43	-15.57	-13.48	-9.68	-3.79	2.09	5.89	7.98	9.90	13.87
36	-21.90	-18.04	-16.16	-14.12	-10.82	-4.68	1.06	4.76	6.80	8.67	12.54
37	-22.12	-18.14	-16.22	-14.13	-10.33	-4.43	1.46	5.26	7.35	9.28	13.25
38	-24.43	-20.05	-17.93	-15.62	-11.42	-4.91	1.59	5.79	8.10	10.22	14.60
39	-24.83	-20.28	-18.07	-15.67	-11.31	-4.55	2.21	6.57	8.97	11.18	15.74
40	-24.59	-20.11	-17.94	-15.58	-11.29	-4.64	2.00	6.29	8.65	10.82	15.30
41	-26.95	-21.95	-19.53	-16.90	-12.42	-4.71	2.70	7.48	10.11	12.53	17.53
42	-27.17	-22.05	-19.57	-16.87	-11.97	-4.38	3.22	8.12	10.82	13.30	19.42
43	-27.78	-22.55	-20.02	-17.27	-12.26	-4.50	3.26	8.26	11.02	13.55	18.78
44	-26.51	-21.34	-18.84	-16.12	-11.18	-3.51	4.15	9.09	11.81	14.32	19.48
45	-24.90	-20.03	-17.67	-15.10	-10.44	-3.22	4.01	8.67	11.23	13.59	18.46
46	-26.38	-21.07	-18.50	-15.70	-10.62	-2.74	5.14	10.22	13.02	15.59	20.90
47	-28.40	-22.58	-19.76	-16.69	-11.11	-2.46	6.18	11.76	14.83	17.65	23.47
48	-27.31	-22.11	-19.30	-16.24	-10.53	-2.07	6.54	12.02	15.15	17.96	23.76
49	-29.46	-23.31	-20.34	-17.10	-11.21	-2.09	7.03	12.92	16.16	19.14	25.28
50	-27.43	-21.31	-19.23	-16.32	-11.04	-2.84	5.36	10.64	13.56	16.21	21.75
51	-25.47	-20.31	-17.82	-15.11	-10.18	-2.53	5.11	10.04	12.76	15.25	20.40
52	-26.21	-20.92	-18.36	-15.57	-10.51	-2.65	5.20	10.26	13.05	15.61	20.90
53	-26.55	-21.29	-18.78	-15.97	-10.93	-3.11	4.70	9.74	12.51	15.06	20.33
54	-28.20	-21.12	-18.65	-15.99	-11.12	-3.52	3.95	8.82	11.49	13.95	19.03
55	-27.74	-22.54	-20.02	-17.28	-12.30	-4.59	3.13	8.11	10.85	13.37	18.57
56	-27.72	-22.71	-20.29	-17.64	-12.85	-5.41	2.02	6.82	9.46	11.89	16.89
57	-33.44	-27.48	-24.59	-21.45	-15.74	-6.89	1.96	7.66	10.81	13.69	19.65
58	-38.66	-31.52	-28.06	-24.30	-17.46	-6.86	3.74	10.58	14.39	17.80	24.94
59	-40.19	-32.57	-28.88	-24.86	-17.57	-6.26	5.05	12.34	16.36	20.05	27.66
60	-43.39	-35.82	-31.88	-27.59	-19.80	-7.72	4.36	12.15	16.43	20.37	28.51
61	-42.66	-34.72	-30.87	-26.69	-18.09	-7.30	4.49	12.09	16.28	20.12	28.06
62	-41.11	-33.42	-29.70	-25.65	-18.29	-6.88	4.53	11.89	15.94	19.66	27.35
63	-39.26	-31.90	-28.33	-24.44	-17.39	-6.46	4.48	11.53	15.42	18.98	26.35
64	-37.47	-30.41	-27.00	-23.28	-16.52	-6.04	4.44	11.19	14.91	18.33	25.39
65	-35.53	-29.12	-25.83	-22.44	-15.72	-5.62	4.49	11.00	14.59	17.89	24.70
66	-34.15	-27.85	-24.50	-21.07	-14.85	-5.20	4.45	10.68	14.10	17.25	23.75
67	-32.38	-26.18	-23.18	-19.91	-13.98	-4.77	4.43	10.36	13.63	16.63	22.83
68	-30.58	-24.69	-21.84	-18.74	-13.10	-4.36	4.38	10.02	13.12	15.98	21.86
69	-29.07	-23.42	-20.69	-17.71	-12.31	-3.93	4.45	9.85	12.83	15.56	21.20
70	-27.34	-21.99	-19.40	-16.58	-11.46	-3.52	4.42	9.55	12.37	14.96	20.31

TABLE 9.11. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH

NOVEMBER

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.35	-8.27	-7.20	-6.17	-5.10	-4.09	-3.00	-2.92	-5.09	-6.09	-8.17
1	-10.17	-12.63	-11.00	-9.17	-8.34	-7.57	-6.50	-7.93	-9.65	-11.35	-14.32
2	-10.05	-12.65	-11.01	-9.22	-8.90	-8.91	-4.13	-7.70	-9.28	-10.82	-14.23
3	-17.29	-13.77	-12.07	-10.21	-9.34	-8.62	-3.61	-6.98	-9.27	-10.54	-14.06
4	-19.41	-15.57	-13.72	-11.70	-9.03	-7.34	-3.34	-7.01	-9.03	-10.80	-14.72
5	-21.33	-17.59	-15.64	-13.41	-9.35	-7.06	-3.23	-7.23	-9.32	-11.57	-15.31
6	-25.22	-20.42	-18.00	-15.90	-10.05	-7.92	-3.22	-7.02	-10.47	-12.78	-17.59
7	-29.24	-23.70	-21.02	-19.10	-12.30	-9.54	-3.64	-3.34	-11.35	-14.54	-20.00
8	-34.01	-27.62	-24.50	-21.10	-15.04	-9.76	-3.92	-3.92	-10.04	-15.40	-22.89
9	-38.14	-30.47	-27.50	-23.72	-16.36	-9.22	-4.42	-11.20	-15.26	-13.53	-25.77
10	-43.12	-35.03	-31.11	-26.84	-18.08	-9.67	-4.54	-12.00	-16.95	-20.80	-28.98
11	-48.40	-39.33	-34.24	-30.10	-21.43	-9.83	-5.42	-14.10	-19.33	-23.27	-32.37
12	-50.48	-41.14	-36.61	-31.09	-22.77	-9.99	-4.97	-13.91	-18.63	-23.35	-32.69
13	-47.29	-38.65	-34.40	-27.32	-21.63	-9.33	-3.22	-12.18	-16.72	-20.37	-29.52
14	-40.96	-33.66	-30.12	-26.27	-19.28	-9.45	-2.34	-9.36	-13.23	-16.77	-24.07
15	-33.60	-27.67	-24.72	-21.66	-15.99	-7.17	-1.64	-7.32	-10.45	-13.32	-19.25
16	-28.08	-23.11	-20.70	-18.08	-13.31	-6.92	-1.40	-6.22	-9.84	-11.25	-16.23
17	-23.89	-19.56	-17.42	-15.17	-11.03	-6.53	-1.34	-5.39	-8.23	-10.37	-14.71
18	-18.19	-14.83	-13.20	-11.43	-8.21	-7.22	-1.77	-4.09	-6.76	-8.39	-11.75
19	-14.13	-11.41	-10.00	-8.66	-6.05	-6.02	-2.02	-4.02	-5.25	-7.37	-10.04
20	-11.62	-9.71	-8.10	-6.97	-4.75	-7.31	-2.13	-4.35	-5.77	-6.69	-9.01
21	-10.03	-7.98	-6.99	-5.30	-3.34	-6.83	-2.15	-4.11	-5.20	-5.19	-4.24
22	-10.44	-8.26	-7.20	-6.05	-3.87	-7.72	-2.51	-4.53	-5.74	-6.80	-4.98
23	-10.31	-8.14	-7.07	-5.34	-3.30	-6.64	-2.03	-4.67	-5.31	-6.37	-3.04
24	-11.09	-8.78	-7.67	-6.44	-4.23	-6.60	-2.63	-4.85	-6.06	-7.18	-9.50
25	-12.74	-10.16	-8.91	-7.55	-5.03	-7.25	-2.53	-5.00	-6.41	-7.00	-10.24
26	-13.87	-11.14	-9.81	-8.77	-5.76	-7.71	-2.34	-4.95	-6.20	-7.71	-10.44
27	-15.25	-12.26	-10.80	-9.23	-6.30	-7.32	-2.53	-5.30	-6.17	-7.42	-11.42
28	-14.86	-11.33	-9.62	-7.76	-4.38	-6.66	-6.11	-5.49	-11.35	-13.06	-16.59
29	-16.09	-12.39	-10.60	-8.65	-5.11	-3.39	-5.88	-9.42	-11.37	-13.16	-16.86
30	-15.89	-12.21	-10.43	-8.50	-4.98	-4.7	-5.92	-9.43	-11.37	-13.15	-16.82
31	-16.78	-13.08	-11.29	-9.34	-5.79	-3.30	-5.20	-8.74	-10.69	-12.48	-16.19
32	-18.27	-14.47	-12.63	-10.63	-6.99	-1.36	-4.28	-7.91	-9.92	-11.75	-15.55
33	-20.71	-16.52	-14.49	-12.28	-8.27	-2.04	-4.18	-8.19	-10.40	-12.43	-16.62
34	-22.37	-18.01	-15.89	-13.59	-9.41	-2.93	-3.55	-7.73	-10.04	-12.15	-16.52
35	-25.83	-20.83	-18.40	-15.76	-10.97	-3.54	-3.89	-8.68	-11.32	-13.75	-18.75
36	-27.92	-22.81	-20.30	-17.57	-12.61	-4.93	-2.76	-7.71	-10.44	-12.95	-19.13
37	-29.37	-23.88	-21.22	-18.32	-13.06	-4.91	-3.24	-8.50	-11.39	-14.05	-19.54
38	-32.49	-26.43	-23.49	-20.30	-14.49	-5.49	-3.51	-9.32	-12.51	-15.45	-21.51
39	-35.64	-28.79	-25.47	-21.86	-15.31	-5.14	-5.02	-11.58	-15.19	-18.51	-25.36
40	-36.85	-29.93	-26.58	-22.93	-16.30	-6.03	-4.25	-10.87	-14.52	-17.87	-24.79
41	-38.80	-31.43	-27.86	-23.98	-16.92	-5.99	-4.95	-12.01	-15.89	-19.46	-26.83
42	-37.04	-29.92	-26.47	-22.72	-15.90	-5.33	-5.25	-12.06	-15.82	-19.27	-26.39
43	-34.38	-27.59	-24.31	-20.73	-14.24	-4.17	-5.90	-12.39	-15.97	-19.25	-26.04
44	-32.96	-25.92	-22.51	-18.80	-12.06	-1.62	-8.83	-15.57	-19.28	-22.68	-29.72
45	-33.19	-26.00	-22.52	-18.73	-11.86	-1.19	-9.47	-16.35	-20.14	-23.62	-30.80
46	-33.13	-25.69	-22.08	-18.15	-11.03	-0.02	-11.07	-18.20	-22.12	-25.73	-33.18
47	-35.16	-27.19	-23.32	-19.12	-11.49	-0.34	-12.17	-19.80	-24.00	-27.87	-35.84
48	-33.17	-25.68	-22.05	-18.10	-10.92	-0.21	-11.33	-18.51	-22.46	-26.09	-33.58
49	-37.04	-28.64	-24.57	-20.14	-12.09	-0.38	-12.85	-20.90	-25.32	-29.39	-37.80
50	-37.99	-29.85	-25.91	-21.62	-13.83	-1.75	-10.33	-18.12	-22.41	-26.35	-34.49
51	-37.52	-29.85	-26.13	-22.09	-14.75	-3.37	-8.02	-15.36	-19.40	-23.12	-30.79
52	-37.60	-30.02	-26.34	-22.35	-15.09	-3.84	-7.41	-14.66	-18.66	-22.33	-29.91
53	-41.55	-33.25	-29.24	-24.87	-16.93	-4.62	-7.69	-15.63	-20.00	-24.01	-32.30
54	-43.54	-34.77	-30.52	-25.90	-17.50	-4.48	-8.54	-16.94	-21.56	-25.81	-34.58
55	-40.89	-32.92	-29.05	-24.85	-17.22	-5.38	-6.46	-14.10	-18.30	-22.16	-30.14
56	-40.35	-32.79	-29.13	-25.14	-17.90	-6.68	-4.54	-11.77	-15.76	-19.42	-26.98
57	-41.51	-33.79	-30.05	-25.99	-18.60	-7.15	-4.30	-11.68	-15.75	-19.49	-27.20
58	-38.14	-30.91	-27.41	-23.60	-16.69	-5.96	-4.76	-11.68	-15.49	-18.99	-25.22
59	-40.99	-32.71	-28.70	-24.33	-16.41	-4.12	-8.18	-16.10	-20.47	-24.48	-32.76
60	-48.31	-39.13	-34.39	-29.24	-19.87	-5.36	-9.16	-18.52	-23.68	-28.42	-38.20
61	-49.32	-39.41	-34.62	-29.40	-19.91	-5.21	-9.49	-18.97	-24.19	-28.99	-38.89
62	-48.27	-38.57	-33.87	-28.76	-19.47	-5.07	-9.34	-18.63	-23.74	-28.44	-38.14
63	-47.23	-37.73	-33.12	-28.12	-19.02	-4.92	-9.19	-18.28	-23.29	-27.89	-37.39
64	-46.18	-36.88	-32.38	-27.48	-18.57	-4.77	-9.03	-17.94	-22.84	-27.34	-36.64
65	-45.41	-36.25	-31.82	-26.99	-18.22	-4.63	-8.97	-17.74	-22.57	-27.00	-36.16
66	-44.34	-35.39	-31.06	-26.34	-17.77	-4.48	-8.81	-17.38	-22.10	-26.43	-35.39
67	-43.30	-34.55	-30.31	-25.70	-17.32	-4.33	-8.66	-17.03	-21.65	-25.89	-34.64
68	-42.25	-33.71	-29.56	-25.06	-16.87	-4.18	-8.51	-16.69	-21.20	-25.34	-33.89
69	-41.21	-32.86	-28.82	-24.42	-16.43	-4.04	-8.35	-16.35	-20.75	-24.79	-33.14
70	-40.17	-32.02	-28.07	-23.78	-15.98	-3.89	-8.20	-16.00	-20.29	-24.24	-32.39

TABLE 9.12. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
75 DEGREE FLIGHT AZIMUTH
DECEMBER

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.96	-8.76	-7.70	-6.54	-4.43	-1.17	2.10	4.20	5.36	6.42	8.62
1	-17.51	-11.60	-11.70	-3.64	-5.89	-0.09	5.72	9.47	11.53	13.43	17.34
2	-16.54	-12.96	-11.21	-3.31	-5.86	-0.56	4.86	8.31	10.22	11.96	15.57
3	-18.24	-14.46	-12.63	-10.63	-7.02	-1.40	4.21	7.83	9.82	11.65	15.43
4	-20.47	-16.80	-14.28	-12.08	-6.09	-1.89	4.30	8.70	10.50	12.52	16.69
5	-23.76	-18.89	-16.52	-13.95	-2.23	-2.05	5.19	9.86	12.43	14.79	19.67
6	-26.55	-21.19	-18.60	-15.77	-10.65	-2.69	5.26	10.38	13.21	15.80	21.16
7	-25.40	-23.51	-20.66	-17.56	-11.92	-3.19	5.57	11.20	14.31	17.16	23.05
8	-32.12	-25.71	-22.60	-19.23	-13.09	-3.57	5.95	12.08	15.46	18.57	24.98
9	-36.22	-27.00	-25.51	-21.70	-14.79	-4.08	6.64	13.55	17.35	20.85	28.06
10	-41.32	-33.10	-29.12	-24.79	-16.93	-4.74	7.45	15.32	19.65	23.62	31.84
11	-45.00	-36.11	-31.01	-27.12	-18.61	-5.42	7.73	16.29	20.93	25.28	34.17
12	-47.23	-37.90	-33.39	-28.46	-19.53	-5.68	8.18	17.11	22.03	26.55	35.88
13	-49.79	-39.22	-34.07	-29.55	-13.35	-5.62	7.10	15.30	19.32	23.97	32.54
14	-46.41	-39.48	-36.12	-22.48	-15.85	-5.57	4.71	11.34	14.99	18.35	25.28
15	-31.21	-25.32	-22.47	-19.37	-13.73	-5.00	3.74	9.33	12.43	15.33	21.22
16	-27.73	-22.44	-19.88	-17.00	-12.03	-4.17	3.68	8.74	11.53	14.09	19.38
17	-24.73	-19.96	-17.65	-15.14	-10.57	-3.43	3.60	8.16	10.63	12.99	17.76
18	-20.06	-16.16	-14.20	-12.21	-8.47	-2.67	3.17	6.87	8.93	10.82	14.73
19	-15.56	-12.50	-11.01	-9.40	-6.46	-1.92	2.63	5.57	7.13	8.66	11.73
20	-13.09	-10.49	-9.27	-7.46	-5.37	-1.51	2.35	4.84	6.21	7.47	10.07
21	-11.51	-9.20	-8.03	-6.86	-4.64	-1.20	2.23	4.45	5.67	6.79	9.10
22	-10.85	-8.74	-7.72	-6.61	-4.50	-1.46	1.66	3.66	4.79	5.81	7.92
23	-11.98	-9.65	-8.53	-7.30	-5.03	-1.63	1.82	4.05	5.27	6.40	8.72
24	-12.55	-10.15	-8.98	-7.72	-5.42	-1.85	1.72	4.02	5.29	6.45	8.86
25	-14.51	-11.76	-10.42	-8.97	-6.33	-2.24	1.85	4.43	5.95	7.28	10.04
26	-16.64	-13.47	-11.93	-10.26	-7.22	-2.51	2.20	5.23	6.91	8.44	11.62
27	-17.57	-14.17	-12.52	-10.72	-7.46	-2.41	2.64	5.30	7.60	9.34	12.75
28	-17.24	-13.43	-11.59	-9.58	-5.93	-2.28	5.38	9.03	11.04	12.88	16.69
29	-19.57	-15.19	-13.07	-10.76	-6.57	-2.07	6.42	10.61	12.92	15.04	19.42
30	-20.82	-15.87	-13.46	-10.87	-6.14	-1.20	8.54	13.28	15.88	18.28	23.22
31	-25.24	-19.23	-16.32	-13.15	-7.40	-1.53	10.45	16.20	19.37	22.29	28.30
32	-29.56	-22.49	-19.07	-15.34	-8.57	-1.93	12.43	19.20	22.92	26.35	33.42
33	-29.59	-22.38	-18.89	-15.09	-8.19	-2.51	13.22	20.12	23.92	27.41	34.62
34	-30.27	-22.96	-19.42	-15.56	-8.56	-2.30	13.15	20.15	24.01	27.55	34.86
35	-31.47	-24.15	-20.60	-16.74	-9.73	-1.14	12.01	19.02	22.88	26.42	33.75
36	-34.40	-26.94	-23.08	-18.89	-11.26	-1.56	12.38	20.00	24.20	28.05	36.22
37	-40.43	-31.33	-26.92	-22.12	-13.41	-1.11	13.62	22.34	27.14	31.55	40.65
38	-45.75	-35.55	-30.62	-25.24	-15.49	-1.36	14.78	24.53	29.91	34.84	45.04
39	-49.45	-38.27	-32.85	-26.96	-16.26	-1.34	16.93	27.64	33.53	38.95	50.13
40	-49.76	-38.55	-33.12	-27.21	-16.48	-1.17	16.81	27.54	33.45	38.88	50.09
41	-47.69	-37.02	-31.85	-26.22	-16.01	-1.16	15.68	25.90	31.52	36.69	47.36
42	-44.93	-34.85	-29.97	-24.66	-15.02	-1.06	14.90	24.54	29.85	34.73	44.81
43	-43.93	-33.98	-29.16	-23.91	-14.39	-1.38	15.14	24.67	29.91	34.73	44.68
44	-42.05	-32.57	-27.98	-22.98	-13.91	-1.16	14.23	23.30	28.29	32.88	42.36
45	-43.97	-34.09	-29.30	-24.09	-14.63	-1.04	14.71	24.17	29.38	34.17	44.05
46	-44.45	-34.52	-29.71	-24.47	-14.96	-1.22	14.52	24.03	29.27	34.08	44.01
47	-42.50	-32.82	-28.14	-23.03	-13.77	-1.59	14.96	24.22	29.32	34.01	43.69
48	-41.28	-31.64	-26.97	-21.88	-12.65	-1.66	15.97	25.20	30.29	34.96	44.60
49	-40.47	-30.95	-26.34	-21.32	-12.21	-1.92	16.05	25.17	30.18	34.80	44.32
50	-40.30	-30.96	-26.44	-21.52	-12.59	-1.27	15.13	24.06	28.98	33.50	42.84
51	-40.91	-31.36	-26.73	-21.69	-12.55	-1.63	15.81	24.95	29.99	34.62	44.17
52	-41.65	-31.92	-27.21	-22.08	-12.77	-1.66	16.10	25.41	30.53	35.24	44.97
53	-41.80	-32.26	-27.65	-22.62	-13.49	-1.67	14.82	23.95	28.98	33.60	43.13
54	-44.58	-34.68	-29.83	-24.56	-14.98	-1.14	14.71	24.29	29.56	34.41	44.41
55	-44.43	-37.87	-32.75	-27.18	-17.06	-1.38	14.30	24.42	29.99	35.11	45.67
56	-50.80	-39.87	-34.58	-28.82	-18.35	-2.13	14.10	24.56	30.32	35.62	46.55
57	-52.65	-41.59	-36.24	-30.41	-19.82	-3.40	13.01	23.60	29.43	34.78	45.84
58	-51.38	-40.28	-34.90	-29.05	-18.43	-1.95	14.53	25.16	31.01	36.39	47.49
59	-56.64	-45.33	-39.86	-33.90	-23.09	-6.31	10.46	21.28	27.24	32.71	44.01
60	-52.03	-41.41	-36.76	-31.69	-22.49	-8.23	6.09	15.24	20.30	24.96	34.57
61	-63.71	-51.15	-45.07	-38.44	-26.42	-7.78	10.87	22.89	29.51	35.59	48.16
62	-54.72	-47.18	-41.59	-35.51	-24.46	-7.33	9.79	20.84	26.92	32.51	44.05
63	-53.77	-43.24	-38.14	-32.59	-22.51	-6.88	8.74	18.82	24.37	29.47	40.00
64	-48.80	-39.29	-34.68	-29.67	-20.56	-6.44	7.68	16.79	21.80	26.41	35.92
65	-44.09	-35.53	-31.39	-26.87	-18.68	-5.98	6.72	14.92	19.43	23.57	32.13
66	-39.17	-31.62	-27.96	-23.98	-16.75	-5.53	5.68	12.91	16.89	20.55	28.10
67	-34.30	-27.74	-24.56	-21.10	-14.82	-5.08	4.66	10.94	14.39	17.57	24.13
68	-29.54	-23.95	-21.28	-18.29	-12.94	-4.63	3.67	9.03	11.98	14.69	20.28
69	-24.67	-20.22	-17.97	-15.53	-11.08	-4.19	2.70	7.15	9.60	11.84	16.49
70	-20.38	-16.65	-14.84	-12.86	-9.29	-3.74	1.81	5.39	7.36	9.17	12.91

TABLE 10.1. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

JANUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.32	-6.29	-5.30	-4.23	-2.28	.74	3.76	5.71	6.79	7.77	9.80
1	-18.00	-13.28	-10.97	-8.50	-3.98	3.03	10.04	14.56	17.35	19.34	24.35
2	-13.72	-8.98	-6.69	-4.19	-.34	7.37	14.40	18.97	21.42	23.72	28.44
3	-10.33	-5.98	-3.59	-.97	3.77	11.12	19.47	23.21	25.82	27.22	31.17
4	-9.51	-4.09	-1.46	1.40	6.59	14.64	22.69	27.83	30.74	33.37	38.79
5	-8.84	-2.74	-.21	1.42	9.26	18.31	27.36	33.20	36.41	39.36	45.42
6	-7.66	-.52	2.65	6.10	12.36	22.07	31.78	38.04	41.49	44.60	51.27
7	-6.98	.36	3.92	7.79	14.82	25.72	36.62	43.65	47.52	51.03	58.42
8	-6.35	1.65	5.52	9.74	17.39	29.26	41.13	48.78	53.06	56.87	64.83
9	-7.15	1.79	6.13	10.85	19.42	32.71	46.00	54.57	59.29	63.53	72.53
10	-7.48	2.38	7.15	12.35	21.78	36.41	51.04	60.47	65.67	70.44	80.30
11	-6.67	3.81	8.83	14.40	24.43	39.98	55.53	65.56	71.08	76.15	86.63
12	-2.46	7.61	12.49	17.80	27.44	42.39	57.34	68.98	74.20	77.17	87.24
13	2.28	11.34	15.73	20.51	29.13	42.63	58.08	70.75	75.93	78.32	92.99
14	4.07	12.28	16.25	20.58	29.43	40.61	52.79	60.64	64.97	68.94	77.15
15	4.15	11.37	14.86	18.66	25.57	36.28	46.99	53.90	57.70	61.19	68.41
16	3.42	9.64	12.65	15.93	21.08	31.11	40.34	46.29	49.57	52.58	58.60
17	.00	5.73	8.47	11.45	15.96	25.25	33.64	39.05	42.03	44.77	50.42
18	-4.77	.51	3.07	5.85	10.91	18.75	26.59	31.45	34.43	36.99	42.27
19	-9.27	-4.26	-1.84	-.80	5.59	13.02	20.45	25.24	27.83	30.30	35.31
20	-11.43	-6.91	-4.72	-2.34	1.99	8.70	15.41	19.74	22.12	24.31	28.83
21	-14.21	-9.62	-7.39	-4.97	-.57	6.25	13.07	17.47	19.39	22.12	26.71
22	-17.77	-12.66	-10.19	-7.50	-2.61	4.97	12.55	17.44	19.13	22.60	27.71
23	-19.59	-14.23	-11.63	-8.80	-3.67	4.29	12.25	17.39	20.21	22.91	29.17
24	-22.08	-16.14	-13.27	-10.14	-4.46	4.75	13.16	18.84	21.97	24.84	30.74
25	-22.76	-15.41	-13.35	-10.02	-3.96	5.43	14.82	20.94	24.21	27.27	33.60
26	-26.88	-19.30	-15.63	-11.64	-4.38	6.87	18.12	25.38	29.37	33.04	40.62
27	-31.15	-22.49	-18.30	-13.74	-5.45	7.40	20.25	29.54	33.10	37.29	45.95
28	-35.78	-25.71	-18.82	-12.59	-4.89	7.04	18.97	26.67	30.90	34.79	42.83
29	-35.97	-23.99	-19.44	-14.49	-5.50	8.43	22.36	31.35	36.30	40.85	50.23
30	-36.82	-26.13	-20.95	-15.32	-5.09	10.78	26.65	36.88	42.51	47.69	58.38
31	-40.33	-28.48	-22.74	-16.50	-5.15	12.43	30.02	41.36	47.61	53.34	65.19
32	-43.84	-30.95	-24.71	-17.92	-5.58	13.95	32.68	45.01	51.80	58.05	70.93
33	-45.61	-35.27	-28.33	-20.77	-7.04	14.24	35.53	49.25	56.81	63.76	78.10
34	-51.18	-37.95	-30.58	-22.55	-7.98	14.63	37.23	51.81	59.83	67.21	82.43
35	-55.25	-42.77	-34.78	-26.10	-10.31	14.15	38.62	54.41	63.09	71.08	87.56
36	-60.63	-43.77	-35.57	-26.65	-10.46	14.66	39.78	55.98	64.90	73.09	90.01
37	-60.86	-43.77	-35.50	-26.49	-10.14	15.23	40.59	56.95	65.95	74.23	91.32
38	-64.82	-45.23	-37.62	-28.25	-11.23	15.17	41.56	58.58	67.96	76.57	94.35
39	-63.38	-45.64	-37.04	-27.69	-10.70	15.64	41.99	58.98	68.33	76.93	94.67
40	-68.63	-45.28	-34.88	-25.73	-9.13	16.63	42.38	58.99	68.14	76.54	93.83
41	-63.74	-45.70	-36.97	-27.46	-10.20	16.98	43.35	60.61	70.12	78.86	96.89
42	-68.88	-43.33	-34.82	-25.57	-8.77	17.29	43.35	60.15	69.41	77.91	95.46
43	-61.24	-43.60	-35.05	-25.75	-8.86	17.34	43.53	60.42	69.72	78.27	95.92
44	-58.44	-41.23	-32.89	-23.82	-7.35	18.19	43.73	60.21	69.28	77.61	94.82
45	-57.64	-40.29	-31.83	-22.75	-6.14	19.61	45.36	61.97	71.12	79.52	96.87
46	-57.50	-39.82	-31.25	-21.94	-5.01	21.23	47.47	64.39	73.71	82.28	99.55
47	-56.99	-39.20	-30.58	-21.21	-4.18	22.23	48.63	65.66	75.04	83.65	101.44
48	-59.43	-37.01	-28.54	-19.32	-2.59	23.36	49.31	66.05	75.26	83.73	101.21
49	-58.14	-33.17	-24.96	-16.01	-.23	25.41	50.59	66.83	75.77	83.99	100.95
50	-46.79	-31.86	-23.66	-14.74	1.46	26.59	51.72	67.93	76.85	85.05	101.98
51	-48.95	-31.85	-23.57	-14.55	1.82	27.20	52.59	68.96	77.97	86.26	103.36
52	-46.60	-31.11	-22.65	-13.43	3.31	29.26	55.21	71.95	81.16	89.63	107.12
53	-45.99	-26.91	-18.63	-9.63	6.72	32.08	57.44	73.79	82.90	91.07	108.16
54	-38.79	-22.15	-14.09	-5.32	10.61	35.31	60.01	75.94	84.71	92.77	109.41
55	-39.88	-22.88	-14.64	-5.68	10.60	35.84	61.08	77.36	86.32	94.55	111.56
56	-32.73	-16.46	-8.58	-.01	15.56	39.71	63.86	79.44	88.01	95.89	112.16
57	-30.96	-13.88	-5.61	3.39	19.73	45.08	70.43	86.78	95.78	104.05	121.13
58	-32.70	-15.60	-8.08	2.71	20.04	46.91	73.77	91.10	100.64	109.41	127.51
59	-27.43	-10.64	-2.52	6.33	22.40	47.31	72.22	88.28	97.13	105.26	122.04
60	-27.81	-18.97	-2.81	6.07	22.13	47.19	72.19	88.31	97.19	105.35	122.19
61	-29.78	-12.94	-4.78	4.10	20.22	45.22	70.22	86.34	95.22	103.38	120.22
62	-31.76	-14.91	-6.75	2.13	18.25	43.25	68.25	84.37	93.25	101.41	118.25
63	-33.42	-16.64	-8.52	.32	16.38	41.28	66.18	82.24	91.08	99.20	115.98
64	-35.39	-18.51	-10.49	-1.65	14.81	39.31	64.21	80.27	89.11	97.23	114.01
65	-37.35	-20.57	-12.45	-3.61	12.45	37.35	62.25	78.31	87.15	95.27	112.05
66	-39.32	-22.54	-14.42	-5.58	10.48	35.38	60.28	76.34	85.18	93.30	110.08
67	-41.29	-24.51	-16.39	-7.55	8.51	33.41	58.31	74.37	83.21	91.33	108.11
68	-42.87	-26.26	-18.17	-9.36	6.63	31.43	56.23	72.22	81.03	89.12	105.83
69	-44.93	-28.22	-20.13	-11.32	4.67	29.47	54.27	70.26	79.07	87.16	103.87
70	-46.98	-30.19	-22.10	-13.29	2.70	27.50	52.30	68.23	77.10	85.19	101.90

TABLE 10.2. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH
FEBRUARY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.90	-7.58	-6.45	-5.22	-3.00	.45	3.30	6.12	7.35	8.48	10.80
1	-10.13	-13.24	-10.87	-8.29	-3.61	3.65	10.91	15.59	18.17	20.54	25.43
2	-15.44	-10.17	-7.62	-4.84	.20	8.02	15.84	20.88	23.66	26.21	31.48
3	-13.42	-7.75	-5.01	-2.02	3.40	11.81	20.22	25.64	28.63	31.37	37.04
4	-13.31	-6.97	-3.90	-.56	5.51	14.32	24.33	30.40	33.74	36.81	43.15
5	-13.05	-5.98	-2.55	1.18	7.95	18.45	28.95	35.72	39.45	42.88	49.95
6	-12.16	-4.41	-.66	7.82	10.84	22.34	33.84	41.26	45.34	49.09	56.88
7	-12.65	-3.98	.22	4.79	15.09	25.96	38.83	47.13	51.70	55.90	64.57
8	-13.65	-3.94	.76	5.88	15.17	29.58	43.99	53.28	58.40	63.10	72.81
9	-15.16	-4.25	1.04	6.79	17.24	33.44	49.64	60.09	65.84	71.13	82.04
10	-14.68	-3.10	2.51	8.51	19.70	36.89	54.08	65.17	71.27	76.88	88.46
11	-13.43	-1.32	4.54	10.92	22.51	40.48	58.45	70.04	76.42	82.28	94.39
12	-9.16	2.59	8.29	14.47	25.72	43.16	60.60	71.85	78.04	83.73	95.48
13	-4.79	6.00	11.23	16.92	27.25	45.27	62.99	73.62	79.31	84.54	91.33
14	-1.02	8.24	12.73	17.61	26.48	40.23	53.98	62.85	67.73	72.22	81.48
15	-.40	7.67	11.58	15.83	23.56	35.54	47.52	55.25	59.50	63.41	71.48
16	-1.08	6.05	8.50	13.26	20.08	30.66	41.24	48.06	51.82	55.27	62.40
17	-3.78	2.63	5.54	9.12	15.26	24.78	34.30	40.44	43.82	46.93	53.34
18	-7.55	-1.71	1.12	4.20	9.79	18.46	27.13	32.72	35.80	38.63	44.47
19	-11.48	-6.12	-1.52	-.69	4.44	12.40	20.36	25.49	28.32	30.92	36.28
20	-15.19	-10.18	-7.75	-5.11	-.31	7.13	14.57	19.37	22.01	24.44	29.45
21	-16.26	-11.71	-9.50	-7.10	-2.74	4.02	10.78	15.14	17.54	19.75	24.30
22	-16.51	-13.80	-11.52	-9.04	-4.53	2.46	9.45	13.96	16.44	18.72	23.43
23	-16.97	-14.33	-12.08	-9.63	-5.19	1.70	8.59	13.03	15.48	17.73	22.37
24	-16.48	-14.70	-12.38	-9.86	-5.28	1.82	8.92	13.50	16.02	18.34	23.12
25	-21.55	-16.27	-13.72	-10.94	-8.89	1.94	9.77	14.82	17.60	20.15	25.43
26	-22.95	-17.23	-14.46	-11.45	-9.97	2.52	11.01	16.49	19.50	22.27	27.99
27	-25.41	-19.02	-15.97	-12.95	-6.43	3.06	12.55	18.67	22.04	25.14	31.53
28	-28.21	-14.92	-11.02	-7.78	-1.83	7.38	16.85	22.47	26.74	28.92	34.82
29	-29.44	-12.98	-8.85	-6.44	-.26	9.33	18.92	25.10	28.50	31.63	38.09
30	-29.12	-12.08	-8.66	-6.95	1.79	12.24	22.69	29.43	33.14	36.56	43.60
31	-17.85	-10.44	-8.85	-2.95	4.14	15.13	25.12	33.21	37.12	40.70	48.11
32	-13.08	-10.82	-8.83	-2.49	5.40	17.63	29.86	37.75	42.09	46.08	54.32
33	-20.47	-11.56	-7.29	-2.95	5.99	19.21	32.44	40.98	45.67	49.99	58.90
34	-28.62	-11.53	-7.13	-2.34	6.36	19.85	33.33	42.03	46.82	51.22	60.31
35	-19.56	-10.64	-6.32	-1.61	6.93	20.18	33.43	41.97	46.68	51.00	59.93
36	-21.85	-11.88	-7.24	-2.19	6.97	21.19	35.40	44.57	49.61	54.25	63.83
37	-23.43	-12.25	-8.32	-2.95	6.79	21.90	37.01	46.76	52.13	57.06	67.24
38	-25.80	-14.04	-8.83	-3.16	7.15	23.12	39.09	49.39	55.06	60.27	71.04
39	-25.41	-14.31	-8.93	-3.08	7.55	25.02	40.50	51.13	56.98	62.35	73.45
40	-27.19	-13.98	-9.83	-3.68	7.44	28.79	42.11	53.27	59.42	65.07	76.73
41	-28.52	-16.20	-10.28	-3.75	8.04	26.32	44.60	56.39	62.88	68.85	81.16
42	-25.69	-13.61	-7.76	-1.40	10.16	28.08	46.00	57.56	63.93	69.77	81.85
43	-23.94	-11.88	-6.04	.32	11.86	29.77	47.67	59.21	65.57	71.41	83.47
44	-24.35	-11.82	-5.74	.86	12.87	31.48	50.09	62.09	68.70	74.77	87.31
45	-24.47	-11.52	-5.25	1.58	13.97	33.19	52.41	64.80	71.63	77.90	90.85
46	-22.39	-9.97	-1.69	3.15	15.56	34.82	54.07	66.49	73.32	79.61	92.58
47	-21.27	-8.39	-2.15	4.64	16.96	36.08	55.19	67.52	74.31	80.55	93.42
48	-18.58	-5.87	.24	6.87	18.93	37.63	56.33	68.38	75.02	81.12	93.72
49	-16.37	-3.68	2.47	9.16	21.31	40.15	58.99	71.14	77.83	83.97	96.67
50	-16.13	-3.35	2.84	9.57	21.80	40.77	59.73	71.96	78.70	84.89	97.66
51	-14.52	-1.84	4.30	10.98	23.11	41.92	60.73	72.86	79.54	85.68	98.35
52	-13.75	-.71	5.61	12.49	24.97	44.33	63.69	76.18	83.05	89.37	102.42
53	-10.20	2.74	9.00	15.82	28.20	47.40	66.60	78.99	85.80	92.07	105.00
54	-6.19	5.92	12.53	19.17	31.24	49.96	68.67	80.74	87.34	93.49	106.10
55	-1.68	10.42	16.27	22.65	34.22	52.17	70.12	81.69	88.07	93.93	106.02
56	-1.17	11.29	17.25	23.79	35.67	54.09	72.52	84.40	90.94	96.55	109.36
57	-2.42	10.83	17.25	24.23	36.92	56.58	76.25	88.93	95.92	102.33	115.58
58	-1.13	12.56	18.70	25.39	37.53	56.36	75.19	87.33	94.02	100.15	112.85
59	-6.95	8.02	15.26	23.15	37.47	59.68	81.89	96.21	104.10	111.35	126.31
60	-11.79	4.91	12.99	21.79	37.77	62.54	87.31	103.29	112.08	120.17	136.86
61	-12.04	4.66	12.16	20.75	36.36	60.56	84.76	100.37	108.96	116.86	133.16
62	-12.23	3.67	11.37	19.75	34.97	58.57	82.17	97.39	105.77	113.97	129.37
63	-12.71	2.85	10.39	18.59	33.49	56.59	79.69	94.59	102.79	110.33	125.89
64	-11.38	1.26	9.60	17.59	32.10	54.60	77.10	91.61	99.60	106.39	122.10
65	-13.08	1.67	8.82	16.60	30.72	52.62	74.82	88.64	96.42	103.57	118.32
66	-13.26	1.89	8.04	15.60	29.34	50.64	71.94	85.68	93.24	100.13	113.59
67	-13.45	.50	7.25	14.60	27.95	48.65	69.35	82.70	90.05	96.80	110.75
68	-13.93	-.32	6.27	13.44	26.47	46.67	66.47	79.90	87.07	93.65	107.27
69	-14.12	-.92	5.48	12.44	25.08	44.68	64.28	76.92	83.88	90.28	103.48
70	-14.38	-1.50	4.78	11.45	23.78	42.78	61.70	73.95	80.70	86.30	99.28

TABLE 10.3. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

MARCH

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.75	-7.55	-6.44	-5.32	-3.21	-0.06	7.33	5.44	6.60	7.67	9.87
1	-17.39	-12.76	-10.52	-8.08	-3.65	3.22	10.09	14.52	16.36	19.20	23.83
2	-13.93	-9.17	-6.86	-4.35	-2.1	7.28	14.35	18.91	21.42	23.73	29.49
3	-13.24	-7.86	-5.25	-2.41	2.74	10.73	18.72	23.87	27.71	29.37	34.70
4	-12.75	-6.71	-3.78	-1.59	5.19	14.16	23.13	28.91	32.10	35.03	41.07
5	-11.51	-4.89	-1.60	1.80	8.13	17.95	27.77	34.10	37.59	40.79	47.41
6	-9.55	-2.52	0.89	4.60	11.73	21.77	32.21	39.94	42.65	46.06	53.09
7	-8.87	-1.15	2.59	6.66	14.05	25.51	36.97	44.36	46.43	50.17	59.89
8	-8.34	0.06	4.13	8.56	16.60	29.07	41.54	49.59	51.01	55.09	66.48
9	-8.59	0.73	5.25	10.16	19.09	32.93	46.77	55.70	57.01	61.13	74.45
10	-9.10	1.20	6.19	11.52	21.48	36.77	52.06	61.92	63.35	67.34	82.64
11	-7.34	3.37	8.56	14.21	24.46	40.35	56.26	66.51	67.16	71.35	88.06
12	-3.06	7.76	12.41	17.90	27.89	43.35	58.82	69.80	74.23	79.34	99.75
13	2.11	11.41	15.92	20.82	29.77	43.54	57.35	68.26	71.16	75.67	84.97
14	3.29	11.82	15.85	20.04	28.01	40.37	52.77	60.70	65.09	69.12	77.45
15	3.29	10.53	14.03	17.84	24.77	35.51	46.25	53.18	56.99	60.44	67.72
16	1.93	8.28	11.35	14.71	20.79	30.22	39.65	45.73	49.08	52.16	59.51
17	-1.54	4.27	7.09	10.15	15.72	24.35	32.94	38.55	41.61	44.43	50.24
18	-6.08	-0.74	1.85	4.67	9.78	17.71	25.64	30.75	33.57	36.16	41.50
19	-10.52	-5.68	-3.37	-0.78	3.86	11.05	18.24	22.88	25.43	27.76	32.62
20	-13.89	-9.36	-7.16	-4.77	-0.43	6.30	13.07	17.37	19.76	21.96	26.49
21	-15.65	-11.44	-9.40	-7.18	-3.15	3.10	9.35	13.38	15.60	17.64	21.85
22	-17.79	-13.48	-11.39	-8.12	-4.99	1.41	7.81	11.44	14.21	16.30	20.51
23	-19.05	-14.78	-12.71	-10.46	-6.37	-0.03	6.31	10.40	12.65	14.72	18.99
24	-20.20	-15.73	-13.57	-11.22	-6.94	-3.1	6.32	10.60	12.05	15.11	19.53
25	-22.25	-17.22	-14.79	-12.14	-7.33	-1.13	7.59	12.40	15.05	17.48	22.51
26	-23.38	-17.90	-15.25	-12.36	-7.12	1.01	9.14	14.38	17.27	19.92	25.40
27	-26.25	-20.04	-17.03	-13.76	-7.81	1.41	10.63	16.58	19.05	22.86	29.07
28	-18.97	-13.61	-11.01	-8.18	-3.05	4.92	12.88	18.02	20.84	23.44	28.81
29	-19.89	-13.23	-10.39	-7.30	-1.70	7.09	15.69	21.30	24.39	27.23	33.09
30	-20.43	-13.87	-10.70	-7.24	-0.96	8.77	18.51	24.79	28.25	31.42	37.98
31	-22.87	-15.31	-11.65	-7.67	-0.44	10.78	22.00	29.23	33.22	36.88	44.43
32	-25.38	-16.90	-12.80	-8.33	-0.22	12.36	24.93	33.04	37.51	41.61	50.09
33	-28.31	-19.02	-14.52	-9.62	-0.72	13.07	26.86	35.76	40.66	45.16	54.45
34	-30.11	-20.27	-15.51	-10.33	-0.92	13.68	28.28	37.69	42.87	47.63	57.47
35	-28.89	-18.72	-14.18	-9.24	-0.27	13.64	27.55	36.52	41.46	46.00	55.37
36	-26.97	-17.94	-13.56	-8.80	-0.16	13.25	26.66	35.30	40.06	44.44	53.47
37	-24.29	-16.31	-12.13	-7.58	-0.69	13.50	26.31	34.58	39.13	43.31	51.94
38	-23.80	-15.20	-11.04	-6.51	1.73	14.49	27.26	35.49	40.02	44.19	52.79
39	-21.89	-14.72	-10.44	-5.79	2.65	15.74	28.83	37.27	41.92	46.20	55.02
40	-22.61	-13.66	-9.37	-4.71	3.76	16.90	30.04	38.51	43.17	47.46	56.31
41	-23.25	-14.03	-9.57	-4.71	4.11	17.79	31.47	40.29	45.15	49.62	58.83
42	-22.91	-13.54	-9.01	-4.07	4.89	18.79	32.69	41.66	46.59	51.13	60.49
43	-21.74	-12.40	-7.87	-2.95	6.00	19.86	33.73	42.68	47.60	52.13	61.47
44	-21.54	-11.94	-7.29	-2.23	6.96	21.21	35.46	44.65	49.71	54.36	63.96
45	-20.15	-10.60	-5.97	-0.94	8.20	22.37	36.55	45.69	50.72	55.35	64.89
46	-17.14	-7.91	-3.44	1.43	10.27	23.98	37.69	46.53	51.40	55.87	65.10
47	-15.28	-6.14	-1.71	3.10	11.85	25.42	38.98	47.73	52.55	56.98	66.12
48	-12.74	-3.68	0.71	5.48	14.15	27.60	41.04	49.71	54.48	58.87	67.93
49	-9.78	-0.91	3.38	8.05	16.52	29.66	42.80	51.28	55.94	60.23	69.08
50	-8.71	0.30	4.66	9.41	18.04	31.41	44.78	53.41	58.16	62.52	71.53
51	-6.03	2.82	7.11	11.78	20.25	33.39	46.54	55.01	59.68	63.97	72.82
52	-2.33	6.09	10.17	14.61	22.68	35.18	47.69	55.75	60.19	64.27	72.70
53	-3.66	5.35	9.71	14.46	23.08	36.45	49.82	58.44	63.19	67.55	76.56
54	-2.97	6.10	10.49	15.26	23.94	37.39	50.85	59.52	64.30	68.69	77.75
55	-8.25	3.26	8.21	13.59	23.37	38.53	53.68	63.46	68.84	73.79	84.00
56	-4.10	5.72	10.48	15.65	25.05	39.63	54.20	63.60	68.78	73.53	83.35
57	-2.78	7.01	11.75	16.91	26.28	40.81	55.34	64.71	69.87	74.61	84.40
58	-4.48	6.01	11.10	16.63	26.68	42.25	57.84	67.89	73.42	78.51	89.00
59	-4.56	6.32	11.59	17.32	27.73	43.87	60.02	70.43	76.16	81.43	92.30
60	-7.36	4.44	10.16	16.38	27.68	45.20	62.71	74.01	80.23	85.95	97.75
61	-7.96	3.96	9.14	15.21	26.24	43.34	60.44	71.47	77.54	83.12	94.64
62	-8.62	2.63	8.08	14.01	24.78	41.48	58.18	68.95	74.88	80.33	91.58
63	-9.29	1.70	7.02	12.81	23.32	39.62	55.92	66.43	72.22	77.54	88.52
64	-9.94	0.77	5.95	11.61	21.86	37.76	53.66	63.91	69.56	74.75	85.46
65	-10.60	-0.16	4.90	10.40	20.40	35.90	51.40	61.40	66.90	71.96	82.40
66	-11.25	-1.09	3.89	9.20	18.94	34.04	49.14	58.88	64.24	69.17	79.34
67	-11.92	-2.02	2.78	8.00	17.48	32.18	46.88	56.36	61.58	66.38	76.28
68	-12.68	-2.95	1.72	6.80	16.02	30.32	44.62	53.84	58.92	63.59	73.22
69	-13.29	-3.88	0.66	5.60	14.56	28.46	42.36	51.32	56.26	60.80	70.16
70	-13.90	-4.81	-0.48	4.39	13.10	26.60	40.10	48.81	53.60	58.01	67.10

TABLE 10.4. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

APRIL

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.12	-8.86	-7.77	-6.58	-4.42	-1.07	2.28	4.44	5.83	6.72	8.99
1	-19.33	-14.79	-12.59	-10.20	-5.85	-0.89	7.63	11.98	14.37	16.57	21.11
2	-18.38	-13.48	-11.10	-8.51	-3.82	3.46	10.74	15.43	18.02	20.40	25.30
3	-19.02	-13.42	-10.71	-7.76	-2.40	5.91	14.22	19.58	22.53	25.24	30.84
4	-18.45	-12.80	-9.82	-6.58	-0.69	8.44	17.57	23.46	26.70	29.68	35.83
5	-19.80	-12.72	-9.39	-5.76	-0.82	11.03	21.24	27.82	31.45	34.78	41.66
6	-20.24	-12.61	-8.91	-4.89	2.42	13.75	25.08	32.39	36.41	40.11	47.74
7	-20.66	-12.29	-8.24	-3.83	4.18	16.60	29.02	37.07	41.44	45.49	53.86
8	-21.22	-12.06	-7.62	-2.73	5.98	19.58	33.18	41.95	46.78	51.22	60.38
9	-23.79	-13.44	-6.42	-2.96	6.95	22.32	37.69	47.60	53.06	58.08	68.43
10	-24.63	-13.41	-7.97	-2.07	8.67	25.32	41.97	52.71	58.62	64.05	75.27
11	-25.17	-13.10	-7.25	-1.89	10.67	28.59	46.51	58.07	64.43	70.28	82.35
12	-25.67	-11.07	-5.07	1.46	13.33	31.73	50.13	62.00	68.53	74.53	86.93
13	-26.64	-6.88	-1.19	5.01	16.26	33.71	51.16	62.41	68.61	74.30	86.06
14	-13.80	-3.54	1.43	6.94	16.66	31.89	47.12	56.94	62.35	67.32	77.58
15	-10.25	-1.65	2.51	7.04	15.27	28.03	40.79	49.02	53.55	57.71	66.31
16	-9.57	-2.26	1.28	5.13	12.13	22.98	33.83	40.83	44.68	48.22	55.53
17	-11.65	-5.14	-1.99	1.44	7.67	17.33	26.99	33.22	36.65	39.80	46.31
18	-13.53	-8.02	-5.35	-2.45	2.83	11.01	19.19	24.47	27.37	30.04	35.55
19	-16.75	-11.78	-9.37	-6.75	-1.99	5.39	12.77	17.53	20.15	22.56	27.53
20	-17.28	-13.00	-10.92	-8.66	-4.56	1.80	8.16	12.26	14.52	16.60	20.89
21	-16.32	-13.26	-11.48	-9.54	-6.03	-0.58	4.87	8.38	10.32	12.10	15.77
22	-17.08	-13.71	-12.08	-10.30	-7.08	-2.08	2.92	6.14	7.92	9.55	12.92
23	-17.84	-14.46	-12.83	-11.05	-7.82	-2.81	2.20	5.43	7.21	8.84	12.22
24	-18.32	-15.32	-13.57	-11.67	-8.22	-2.87	2.48	5.93	7.83	9.58	13.18
25	-20.42	-16.41	-14.47	-12.36	-8.52	-2.57	3.38	7.22	9.33	11.27	15.28
26	-22.67	-18.23	-16.38	-13.53	-9.09	-2.20	4.69	9.13	11.58	13.83	18.47
27	-24.37	-18.41	-16.01	-13.40	-8.65	-1.29	6.07	10.82	13.43	15.83	20.79
28	-26.27	-18.94	-16.38	-13.55	-8.44	-0.52	7.40	12.50	15.31	17.90	23.23
29	-24.95	-19.23	-16.46	-13.45	-7.97	.52	9.01	14.44	17.50	20.27	25.99
30	-25.19	-19.13	-16.19	-12.99	-7.18	1.82	10.83	16.64	19.84	22.77	28.84
31	-24.97	-18.69	-15.64	-12.33	-6.31	3.01	12.34	18.36	21.67	24.71	31.00
32	-24.97	-18.22	-15.18	-11.80	-5.72	3.71	13.13	19.21	22.56	25.64	31.99
33	-24.16	-17.76	-14.66	-11.29	-5.16	4.34	13.83	19.96	23.33	26.43	32.83
34	-24.84	-18.12	-14.87	-11.32	-4.89	5.09	15.06	21.50	25.04	28.29	35.02
35	-26.20	-19.14	-15.72	-11.99	-5.23	5.25	15.74	22.50	26.23	29.65	36.71
36	-24.36	-17.66	-14.42	-10.89	-4.48	5.47	15.41	21.82	25.35	28.60	35.30
37	-20.89	-15.00	-12.15	-9.05	-3.42	5.31	14.04	19.67	22.77	25.62	31.50
38	-21.19	-15.21	-12.31	-9.15	-3.42	5.47	14.36	20.09	23.25	26.15	32.14
39	-22.81	-16.60	-13.60	-10.32	-4.38	4.83	14.05	19.99	23.27	26.27	32.48
40	-24.47	-17.75	-14.50	-10.96	-4.53	5.44	15.41	21.84	25.38	28.64	35.35
41	-25.64	-18.58	-15.16	-11.43	-4.68	5.81	16.29	23.05	26.77	30.19	37.25
42	-27.81	-20.38	-16.78	-12.87	-5.76	5.26	16.29	23.40	27.31	30.91	38.34
43	-29.76	-21.91	-18.10	-13.96	-6.44	5.22	16.88	24.40	28.54	32.35	40.20
44	-30.76	-22.61	-18.67	-14.58	-6.58	5.60	17.59	25.39	29.68	33.62	41.77
45	-32.74	-24.06	-19.85	-15.75	-6.97	5.92	18.80	27.11	31.68	35.89	44.57
46	-34.71	-25.28	-20.71	-15.75	-6.72	7.27	21.26	30.28	35.25	39.82	49.24
47	-35.22	-25.42	-20.67	-15.50	-6.12	8.43	22.98	32.36	37.53	42.28	52.08
48	-35.21	-25.20	-20.35	-15.07	-5.49	9.36	24.22	33.80	39.08	43.92	53.93
49	-36.30	-25.93	-20.90	-15.43	-5.80	9.90	25.30	35.23	40.70	45.73	56.10
50	-38.09	-27.29	-22.06	-16.37	-6.04	9.99	26.01	36.35	42.04	47.27	58.06
51	-39.83	-28.57	-23.12	-17.19	-6.41	10.31	27.02	37.80	43.73	49.19	60.45
52	-38.85	-27.79	-22.43	-16.60	-6.01	10.42	26.84	37.43	43.26	48.62	59.68
53	-36.99	-26.19	-20.96	-15.27	-4.93	11.10	27.13	37.47	43.17	48.40	59.20
54	-34.78	-24.14	-18.99	-13.39	-3.21	12.58	28.36	38.54	44.15	49.30	59.94
55	-36.12	-24.84	-19.37	-13.42	-2.62	14.13	30.88	41.68	47.63	53.10	64.38
56	-33.12	-22.23	-16.95	-11.21	-1.79	15.37	31.53	41.96	47.70	52.97	63.86
57	-31.68	-20.94	-15.74	-10.08	-1.20	16.14	32.08	42.36	48.03	53.23	63.97
58	-36.61	-24.47	-18.59	-12.19	-0.56	17.46	35.48	47.10	53.50	59.38	71.52
59	-33.10	-22.25	-16.93	-11.27	-0.88	15.23	31.35	41.74	47.46	52.72	63.57
60	-35.19	-23.64	-18.08	-11.95	-0.89	16.26	33.40	44.46	50.55	56.15	67.70
61	-39.23	-23.78	-18.23	-12.19	-1.23	19.77	37.77	45.73	49.77	55.32	66.77
62	-35.41	-24.02	-18.51	-12.51	-1.61	15.29	32.19	43.09	49.09	54.60	65.99
63	-35.30	-24.05	-18.60	-12.67	-1.90	14.80	31.50	42.27	48.20	53.65	64.90
64	-35.48	-24.30	-18.88	-12.99	-2.28	14.32	30.32	41.63	47.52	52.94	64.12
65	-38.97	-24.79	-19.37	-13.48	-2.77	13.83	30.43	41.14	47.03	52.45	63.63
66	-35.86	-24.81	-19.46	-13.64	-3.06	13.34	29.74	40.32	46.14	51.49	62.54
67	-38.09	-25.06	-19.74	-13.95	-3.44	12.86	29.16	39.67	45.46	50.78	61.76
68	-36.23	-25.32	-20.03	-14.28	-3.83	12.37	28.57	39.02	44.77	50.06	60.97
69	-36.41	-25.56	-20.31	-14.59	-4.21	11.89	27.99	38.37	44.09	49.38	60.19
70	-36.60	-25.82	-20.60	-14.92	-4.60	11.40	27.40	37.72	43.40	48.62	59.48

TABLE 10.5. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

MAY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.56	-8.55	-7.58	-6.52	-4.60	-1.62	1.36	3.28	4.34	5.31	7.32
1	-16.43	-12.90	-11.13	-9.33	-5.95	-2.71	4.53	7.91	9.77	11.48	15.11
2	-16.30	-12.51	-10.68	-8.68	-5.06	-1.58	6.18	9.80	11.90	13.63	17.42
3	-16.30	-12.28	-10.33	-8.21	-4.36	-1.61	7.58	11.43	13.55	15.50	19.52
4	-16.68	-12.31	-10.20	-7.30	-3.72	-2.76	9.24	13.42	15.72	17.83	22.20
5	-16.40	-11.77	-9.53	-7.09	-2.66	-4.21	11.08	15.51	17.97	20.19	24.82
6	-16.56	-11.57	-9.15	-6.52	-1.74	-5.67	13.08	17.86	20.48	22.91	27.90
7	-18.44	-12.67	-9.37	-6.33	-1.30	-7.27	15.84	21.37	24.41	27.21	32.93
8	-17.94	-11.93	-8.02	-5.85	-1.10	-8.82	17.74	23.49	26.65	29.57	35.68
9	-18.79	-12.23	-9.05	-5.59	-0.69	-10.43	20.17	26.45	29.31	33.09	39.65
10	-21.19	-13.68	-10.04	-6.08	1.11	-12.26	23.41	30.60	34.58	38.20	45.71
11	-22.43	-14.12	-10.10	-5.72	2.23	-14.56	26.89	34.94	39.32	43.24	51.55
12	-23.64	-14.54	-10.13	-5.33	3.38	-16.89	30.40	39.11	42.91	48.32	57.42
13	-22.72	-13.36	-8.37	-3.93	5.08	-18.98	32.88	41.84	46.78	51.32	60.63
14	-17.76	-9.55	-5.58	-1.25	6.60	-18.78	30.96	38.81	43.14	47.11	55.72
15	-13.32	-7.23	-3.37	-0.46	5.94	-15.47	25.80	32.20	35.73	39.97	45.65
16	-13.07	-7.46	-4.75	-1.00	3.57	-11.89	20.21	25.58	28.53	31.24	36.85
17	-13.16	-8.54	-6.30	-3.36	-0.56	-7.42	14.29	18.70	21.14	23.38	28.00
18	-14.23	-10.33	-8.44	-6.38	-2.65	-3.14	8.93	12.66	14.72	16.61	20.51
19	-14.75	-11.50	-9.35	-8.20	-5.09	-2.26	4.57	7.69	9.40	10.98	14.23
20	-15.90	-12.91	-11.46	-9.88	-7.02	-2.58	1.86	4.72	6.30	7.75	10.74
21	-17.19	-14.32	-12.93	-11.42	-8.67	-4.41	-1.15	2.60	4.11	5.52	8.37
22	-18.49	-15.60	-14.20	-12.68	-9.91	-5.62	-1.32	1.44	2.98	4.36	7.28
23	-19.34	-16.44	-15.04	-13.61	-10.74	-6.44	-2.14	0.63	2.16	3.56	5.40
24	-20.95	-17.80	-16.28	-14.62	-11.61	-6.94	-2.27	0.74	2.40	3.92	7.07
25	-22.44	-19.00	-17.33	-15.52	-12.22	-7.11	-2.00	1.30	3.11	4.74	8.22
26	-23.00	-20.06	-18.25	-16.28	-12.70	-7.15	-1.60	1.98	3.35	5.76	9.80
27	-24.36	-20.90	-19.33	-16.79	-12.90	-6.37	-0.94	3.05	5.19	7.15	11.22
28	-28.14	-23.37	-21.06	-18.54	-13.97	-6.88	-2.20	4.77	7.29	9.60	14.37
29	-29.31	-24.12	-21.61	-18.87	-13.91	-6.21	-1.49	6.45	9.19	11.70	16.89
30	-31.02	-25.40	-22.68	-19.72	-14.34	-6.00	-2.33	7.71	10.67	13.39	19.01
31	-30.24	-24.58	-21.83	-18.84	-13.42	-5.01	-3.40	8.83	11.82	14.56	20.23
32	-29.18	-23.57	-20.85	-17.90	-12.52	-4.19	-4.14	9.51	12.47	15.19	20.80
33	-28.08	-22.65	-20.01	-17.15	-11.94	-3.87	-4.21	9.41	12.28	14.91	20.35
34	-29.81	-23.96	-21.12	-18.04	-12.44	-3.76	-4.92	10.52	13.61	16.44	22.29
35	-31.12	-25.09	-22.18	-19.01	-13.24	-4.31	-4.63	10.40	13.57	16.48	22.51
36	-33.25	-26.96	-23.92	-20.60	-14.59	-5.26	-4.07	10.09	13.40	16.45	22.73
37	-33.91	-27.71	-24.70	-21.43	-15.50	-6.29	-2.92	8.85	12.12	15.13	21.33
38	-32.22	-26.49	-23.71	-20.69	-15.21	-6.71	-1.79	7.28	10.30	13.07	18.80
39	-32.39	-26.84	-24.15	-21.23	-15.91	-7.67	-0.57	5.89	8.81	11.50	17.06
40	-32.54	-27.29	-24.74	-21.97	-16.94	-9.14	-1.34	3.69	6.46	9.01	14.26
41	-33.63	-28.66	-26.15	-23.43	-18.48	-10.81	-3.13	1.81	4.54	7.04	12.21
42	-36.05	-31.25	-28.54	-25.60	-20.24	-11.94	-3.63	1.72	4.67	7.38	12.98
43	-38.73	-32.95	-30.15	-27.10	-21.56	-12.98	-4.40	1.14	4.18	6.98	12.77
44	-41.23	-35.11	-32.18	-28.91	-23.05	-13.96	-4.86	1.00	4.23	7.20	13.32
45	-42.38	-36.13	-33.11	-29.82	-23.84	-14.57	-5.30	0.68	3.97	6.99	13.24
46	-44.11	-37.67	-34.55	-31.15	-24.98	-15.42	-5.86	0.31	3.70	6.82	13.27
47	-44.88	-38.43	-35.30	-31.90	-25.72	-16.14	-6.56	-0.38	3.02	6.15	12.60
48	-45.17	-38.84	-35.77	-32.43	-26.36	-16.96	-7.55	-1.48	1.86	4.92	11.26
49	-47.20	-40.72	-37.59	-34.18	-27.98	-18.38	-8.77	-2.58	0.84	3.97	10.44
50	-48.18	-42.59	-39.40	-35.92	-29.61	-19.83	-10.05	-3.74	-0.26	2.93	9.52
51	-51.65	-44.50	-41.04	-37.27	-30.43	-19.82	-9.21	-2.37	1.40	4.86	12.01
52	-55.23	-47.27	-43.41	-39.21	-31.58	-19.76	-7.94	-0.31	3.89	7.75	15.71
53	-54.83	-47.03	-43.26	-39.15	-31.69	-20.13	-8.55	-1.10	3.01	6.78	14.57
54	-53.72	-46.14	-42.47	-38.48	-31.22	-19.97	-8.72	-1.46	2.53	6.20	13.78
55	-54.90	-47.08	-43.29	-39.17	-31.69	-20.08	-8.47	-0.99	3.13	6.92	14.74
56	-57.68	-49.22	-45.18	-40.69	-32.62	-20.10	-7.58	-0.49	4.93	9.02	17.45
57	-59.06	-50.22	-46.95	-41.29	-32.83	-19.72	-6.61	1.85	6.50	10.78	19.61
58	-63.78	-58.84	-53.58	-47.78	-37.30	-21.06	-4.82	5.65	11.42	16.72	27.66
59	-63.78	-53.84	-49.03	-43.80	-34.31	-19.59	-4.86	4.63	9.86	14.66	24.58
60	-77.25	-64.18	-57.85	-50.96	-38.44	-19.03	-3.38	12.89	19.78	26.12	39.19
61	-73.38	-61.05	-55.08	-48.58	-36.78	-18.48	-1.18	11.62	18.12	24.09	36.42
62	-69.62	-58.16	-52.52	-46.38	-35.22	-17.92	-0.62	10.54	16.68	22.32	33.98
63	-66.27	-55.29	-49.97	-44.18	-33.67	-17.37	-1.07	9.44	15.23	20.55	31.53
64	-62.42	-52.18	-47.22	-41.82	-32.02	-16.82	-1.62	8.18	13.58	18.54	28.78
65	-59.67	-49.30	-44.67	-39.63	-30.47	-16.27	-2.07	7.09	12.13	16.76	26.33
66	-55.51	-46.42	-42.11	-37.42	-28.91	-15.71	-2.51	6.00	10.69	15.00	23.89
67	-51.46	-43.31	-39.36	-35.06	-27.26	-15.16	-3.06	4.74	9.04	12.99	21.14
68	-47.91	-40.43	-36.81	-32.87	-25.71	-14.61	-3.51	3.65	7.59	11.21	18.69
69	-44.88	-37.31	-34.05	-30.50	-24.05	-14.05	-4.05	2.40	5.95	9.21	15.95
70	-44.88	-34.44	-31.50	-28.30	-22.50	-13.50	-4.50	1.30	4.50	7.44	13.50

TABLE 10.6. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

JUNE

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.20	-7.38	-6.56	-5.54	-2.80	-1.10	1.60	2.34	4.30	5.18	7.00
1	-14.69	-11.34	-9.72	-7.95	-4.75	-2.22	5.19	8.40	10.16	11.78	15.13
2	-13.38	-10.07	-8.46	-6.71	-3.54	-1.38	6.30	9.47	11.22	12.83	16.14
3	-12.47	-9.23	-7.65	-5.95	-2.95	-1.00	6.77	9.87	11.53	13.15	16.37
4	-12.50	-9.16	-7.58	-5.78	-2.58	-0.78	7.34	10.54	12.30	13.92	17.26
5	-12.89	-9.40	-7.71	-5.87	-2.54	-0.63	7.80	11.13	12.97	14.65	18.14
6	-13.93	-10.15	-8.22	-6.33	-2.71	-0.90	8.51	12.13	14.12	15.95	19.73
7	-15.51	-11.25	-9.13	-6.93	-2.95	-1.40	9.81	13.89	16.14	18.21	22.47
8	-17.24	-12.50	-10.20	-7.70	-3.17	-1.88	10.92	15.46	17.96	20.26	25.00
9	-19.83	-14.32	-11.66	-8.76	-3.49	-2.43	12.85	18.12	21.00	23.69	29.19
10	-22.25	-16.84	-13.74	-10.36	-4.23	-3.28	14.79	20.92	24.30	27.40	33.81
11	-26.62	-19.29	-15.78	-11.93	-4.36	-4.02	16.90	23.32	27.73	31.33	38.66
12	-30.09	-21.73	-17.68	-13.27	-5.27	-4.74	19.55	27.55	31.96	36.01	44.37
13	-31.58	-22.70	-18.40	-13.72	-5.22	-4.96	21.14	29.64	34.32	38.62	47.50
14	-29.56	-21.35	-17.37	-13.04	-5.18	-4.91	19.20	27.06	31.39	35.37	43.58
15	-25.49	-19.75	-15.43	-11.33	-5.47	-4.54	14.55	21.01	24.56	27.83	34.57
16	-20.51	-15.59	-12.20	-10.60	-5.89	-4.42	8.73	13.44	16.04	18.43	23.35
17	-17.70	-14.06	-12.29	-10.37	-6.88	-1.47	3.94	7.43	9.35	11.12	14.75
18	-17.37	-14.45	-11.04	-11.50	-8.71	-4.38	-0.05	2.74	4.28	5.69	8.61
19	-18.01	-15.40	-14.25	-12.21	-10.49	-6.73	-2.37	-0.55	-0.73	2.00	4.55
20	-20.24	-17.64	-16.36	-13.01	-12.52	-8.66	-4.80	-2.31	-0.34	-0.32	2.92
21	-21.71	-19.10	-17.85	-14.45	-13.95	-10.07	-6.19	-3.69	-2.31	-1.04	1.57
22	-22.57	-19.10	-17.85	-14.45	-13.95	-10.07	-6.19	-3.69	-2.31	-1.04	1.57
23	-24.12	-21.52	-20.26	-16.83	-16.40	-12.54	-8.69	-6.19	-4.32	-3.56	-0.96
24	-25.66	-22.88	-21.53	-20.00	-17.40	-13.27	-9.14	-6.48	-5.01	-3.66	-0.88
25	-27.41	-24.79	-22.97	-21.34	-18.45	-14.31	-9.57	-6.60	-5.01	-3.55	-0.53
26	-28.53	-25.34	-23.79	-22.11	-19.05	-14.31	-9.57	-6.60	-5.01	-3.55	-0.53
27	-30.09	-26.61	-24.92	-23.03	-19.75	-14.58	-9.41	-6.08	-4.24	-2.55	-0.93
28	-32.66	-28.69	-26.77	-24.68	-20.88	-14.99	-9.10	-5.30	-3.20	-1.28	2.69
29	-31.38	-28.14	-26.29	-24.28	-20.54	-14.98	-9.32	-5.68	-3.67	-1.82	1.99
30	-32.03	-28.24	-26.41	-24.41	-20.79	-15.17	-9.56	-5.98	-3.94	-2.11	1.68
31	-33.72	-29.63	-27.68	-25.48	-21.56	-15.49	-9.41	-5.49	-3.33	-1.35	2.75
32	-33.96	-29.78	-27.75	-25.55	-21.55	-15.34	-9.13	-5.12	-2.92	-0.89	3.29
33	-35.21	-30.83	-28.71	-26.40	-22.20	-15.70	-9.19	-5.00	-2.69	-0.57	3.82
34	-34.92	-30.38	-28.20	-25.91	-21.83	-15.73	-9.14	-4.25	-1.55	-0.92	6.04
35	-35.25	-30.37	-28.01	-25.43	-21.76	-15.52	-10.27	-5.60	-3.03	-0.67	4.21
36	-36.60	-30.02	-28.00	-25.38	-21.99	-15.18	-12.37	-7.99	-5.57	-3.35	1.29
37	-40.60	-36.17	-34.02	-31.69	-27.45	-20.87	-14.29	-10.05	-7.71	-5.56	-1.13
38	-42.96	-37.88	-35.31	-32.94	-28.65	-22.00	-15.35	-11.06	-8.69	-6.52	-2.04
39	-43.91	-39.36	-37.16	-34.76	-30.41	-23.66	-16.91	-12.56	-10.16	-7.96	-3.41
40	-44.30	-40.01	-37.90	-35.67	-31.57	-25.20	-18.84	-14.74	-12.48	-10.40	-5.11
41	-47.95	-43.28	-41.02	-38.56	-34.03	-27.17	-20.24	-15.77	-13.31	-11.05	-6.38
42	-49.80	-45.11	-42.84	-40.36	-35.87	-28.90	-21.94	-17.44	-14.97	-12.70	-8.00
43	-51.74	-47.12	-44.89	-42.46	-38.04	-31.19	-24.34	-19.92	-17.48	-15.25	-10.63
44	-53.26	-48.76	-46.59	-44.22	-39.91	-33.23	-26.56	-22.25	-19.88	-17.70	-13.21
45	-55.07	-50.41	-48.16	-45.70	-41.24	-34.33	-27.41	-22.95	-20.49	-18.24	-13.58
46	-57.53	-52.62	-50.28	-47.65	-42.94	-35.64	-28.35	-23.64	-21.05	-18.67	-13.76
47	-61.18	-55.78	-53.16	-50.32	-45.15	-37.14	-29.12	-23.96	-21.11	-18.49	-13.10
48	-62.13	-56.88	-54.38	-51.58	-46.56	-38.77	-30.99	-25.96	-23.20	-20.66	-15.41
49	-67.01	-60.97	-58.05	-54.87	-49.09	-40.13	-31.17	-25.40	-22.22	-19.29	-13.26
50	-65.69	-59.74	-56.85	-53.71	-48.01	-39.17	-30.33	-24.63	-21.49	-18.61	-12.66
51	-70.21	-63.36	-60.04	-56.43	-49.87	-39.70	-29.53	-22.97	-19.36	-16.04	-9.19
52	-70.81	-63.99	-60.69	-57.10	-50.57	-40.45	-30.33	-23.80	-20.21	-16.91	-10.09
53	-74.38	-66.97	-63.38	-59.47	-52.38	-41.38	-30.38	-23.29	-19.39	-15.80	-8.39
54	-72.10	-65.38	-62.12	-58.58	-52.14	-42.16	-32.18	-25.75	-22.20	-18.95	-12.23
55	-73.93	-66.96	-63.58	-59.91	-53.23	-42.88	-32.53	-25.85	-22.18	-18.80	-11.82
56	-71.86	-65.51	-62.48	-59.10	-53.02	-43.61	-34.19	-28.11	-24.77	-21.70	-15.35
57	-78.00	-69.75	-65.76	-61.42	-53.52	-41.73	-29.05	-21.16	-16.82	-12.83	-4.58
58	-87.12	-76.93	-71.99	-66.62	-56.86	-41.92	-26.40	-16.84	-11.47	-6.53	3.66
59	-88.47	-78.01	-72.95	-67.44	-57.43	-41.92	-26.40	-16.84	-11.47	-6.53	3.66
60	-87.44	-77.71	-73.00	-67.88	-58.56	-44.13	-29.69	-19.25	-15.25	-10.54	-4.81
61	-83.04	-73.88	-69.44	-64.61	-55.84	-42.24	-28.64	-19.87	-15.04	-10.60	-1.44
62	-78.74	-70.12	-65.94	-61.39	-53.14	-40.34	-27.54	-19.29	-14.74	-10.56	-1.94
63	-74.45	-66.37	-62.45	-58.19	-50.45	-38.45	-26.45	-18.71	-14.45	-10.53	-2.45
64	-70.16	-62.61	-58.96	-54.98	-47.76	-36.56	-25.36	-18.14	-14.16	-10.51	-2.96
65	-65.87	-58.86	-55.47	-51.78	-45.07	-34.67	-24.27	-17.56	-13.87	-10.48	-3.47
66	-61.57	-55.10	-51.97	-48.56	-42.37	-32.77	-23.17	-16.98	-13.57	-10.44	-3.97
67	-57.28	-51.35	-48.68	-45.36	-39.68	-30.88	-22.08	-16.40	-13.28	-10.41	-4.48
68	-52.99	-47.60	-44.99	-42.15	-36.99	-28.99	-20.99	-15.83	-12.99	-10.38	-4.99
69	-48.69	-43.84	-41.45	-38.93	-34.29	-27.09	-19.89	-15.25	-12.69	-10.34	-5.49
70	-44.40	-40.09	-38.00	-35.73	-31.60	-25.20	-18.80	-14.67	-12.40	-10.31	-5.80

TABLE 10.7. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

JULY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.85	-6.23	-5.44	-4.58	-3.03	-1.62	1.79	3.74	4.22	4.39	6.61
1	-12.53	-9.51	-8.04	-6.45	-3.55	1.34	5.43	8.33	9.32	11.39	14.41
2	-12.17	-9.12	-7.67	-6.04	-3.13	1.19	5.91	8.82	10.47	11.90	14.95
3	-12.37	-9.00	-7.52	-5.90	-2.97	1.53	6.13	9.06	10.68	12.16	15.23
4	-12.54	-9.37	-7.84	-6.17	-3.14	1.56	6.26	9.28	10.76	12.49	15.65
5	-13.01	-9.79	-8.27	-6.53	-3.45	1.33	6.11	9.12	10.39	12.45	15.67
6	-13.69	-10.40	-8.81	-7.08	-3.97	0.95	5.83	8.92	10.71	12.30	15.59
7	-14.54	-11.19	-9.57	-7.31	-4.60	0.77	5.34	8.55	10.32	11.23	15.29
8	-16.29	-12.65	-10.88	-8.90	-5.47	-0.06	5.35	8.84	10.70	12.63	16.17
9	-18.63	-15.37	-13.30	-11.05	-6.97	-0.64	5.69	9.77	12.02	14.09	17.35
10	-22.65	-17.80	-15.45	-12.89	-8.25	-1.05	6.15	10.79	13.25	15.70	20.55
11	-26.43	-20.84	-18.13	-15.13	-9.83	-1.53	6.77	12.12	15.07	17.78	23.37
12	-30.33	-24.02	-20.97	-17.65	-11.61	-2.25	7.11	12.15	16.47	19.52	27.62
13	-33.01	-26.29	-23.04	-19.50	-13.07	-3.10	6.87	13.30	16.34	20.09	26.41
14	-35.85	-28.00	-24.18	-21.07	-14.47	-3.78	4.91	10.81	13.60	16.44	22.29
15	-38.07	-29.72	-25.61	-22.15	-15.32	-4.63	1.77	5.74	10.34	13.34	14.69
16	-39.42	-31.25	-26.72	-23.05	-16.02	-5.32	-0.62	2.41	4.09	5.61	8.73
17	-40.18	-32.33	-27.10	-23.35	-16.57	-6.41	-2.82	-0.50	0.77	1.34	4.33
18	-41.31	-33.20	-27.83	-23.77	-17.35	-8.37	-5.39	-3.47	-2.41	-1.44	0.57
19	-42.22	-33.79	-28.15	-24.03	-17.83	-10.61	-7.74	-5.89	-4.37	-3.43	-2.00
20	-43.63	-34.25	-28.43	-24.28	-18.03	-13.01	-9.47	-7.19	-5.93	-4.77	-3.29
21	-44.75	-34.33	-28.46	-24.30	-18.57	-14.98	-11.33	-9.07	-7.52	-6.62	-4.21
22	-45.48	-34.22	-28.18	-23.94	-19.78	-16.43	-13.08	-10.92	-9.73	-8.64	-6.39
23	-45.79	-33.49	-27.43	-23.16	-20.95	-17.53	-14.11	-11.90	-10.60	-9.37	-7.27
24	-45.30	-32.90	-26.74	-22.46	-21.18	-18.62	-15.06	-12.76	-11.50	-10.34	-7.94
25	-45.15	-32.52	-26.24	-21.95	-21.32	-19.40	-15.49	-12.95	-11.55	-10.29	-7.54
26	-45.39	-32.38	-26.92	-22.33	-21.45	-19.98	-15.51	-12.63	-11.24	-9.50	-6.57
27	-45.95	-31.67	-30.00	-23.35	-25.21	-20.74	-15.47	-12.33	-10.00	-8.01	-5.72
28	-45.70	-30.79	-29.38	-22.84	-25.05	-20.73	-16.41	-13.62	-12.09	-10.68	-7.76
29	-45.18	-32.19	-30.75	-23.17	-26.31	-21.88	-17.45	-14.59	-13.01	-11.57	-8.54
30	-46.27	-33.21	-31.73	-23.11	-27.18	-22.64	-18.09	-15.16	-13.55	-12.06	-9.00
31	-47.36	-34.10	-32.52	-23.80	-27.69	-22.85	-18.02	-14.90	-13.18	-11.60	-8.35
32	-48.26	-34.91	-33.29	-31.52	-28.32	-23.34	-18.37	-15.16	-13.39	-11.77	-8.42
33	-49.36	-35.82	-34.11	-32.25	-28.87	-23.63	-18.39	-15.00	-13.14	-11.43	-7.90
34	-49.98	-37.28	-35.49	-33.54	-30.01	-24.52	-19.03	-15.50	-13.55	-11.76	-8.06
35	-49.10	-40.12	-38.19	-36.10	-32.29	-26.38	-20.46	-16.67	-14.58	-12.65	-8.67
36	-48.71	-40.08	-38.33	-36.41	-32.94	-27.55	-22.17	-18.69	-16.78	-15.02	-11.39
37	-48.36	-40.91	-39.24	-37.41	-34.11	-28.98	-23.65	-20.54	-18.72	-17.04	-13.59
38	-48.70	-49.22	-46.57	-43.68	-38.44	-30.31	-22.18	-16.93	-14.05	-11.39	-8.92
39	-49.87	-45.83	-43.87	-41.75	-37.88	-31.49	-25.90	-22.04	-19.91	-17.96	-13.92
40	-52.25	-48.15	-46.16	-44.00	-40.08	-33.99	-27.91	-23.98	-21.82	-19.83	-15.74
41	-55.08	-49.89	-47.86	-45.66	-41.65	-35.44	-29.23	-25.22	-23.01	-20.99	-16.80
42	-56.98	-52.55	-50.41	-48.08	-43.84	-37.27	-30.70	-26.47	-24.14	-21.99	-17.57
43	-59.94	-55.45	-53.27	-50.91	-46.61	-39.94	-33.27	-28.97	-26.60	-24.43	-19.94
44	-63.07	-58.40	-56.14	-53.68	-49.21	-42.28	-35.35	-30.88	-28.42	-26.16	-21.49
45	-66.16	-61.21	-58.81	-56.20	-51.45	-44.10	-36.75	-32.01	-29.39	-26.99	-22.04
46	-69.49	-63.53	-60.98	-58.31	-53.47	-45.96	-38.45	-33.61	-30.94	-28.49	-23.43
47	-72.35	-66.74	-64.02	-61.06	-55.69	-47.36	-39.04	-33.67	-30.71	-27.99	-22.38
48	-74.93	-69.52	-63.90	-61.06	-55.89	-47.88	-39.87	-34.71	-31.86	-29.25	-23.85
49	-78.87	-73.32	-63.53	-60.92	-56.19	-48.85	-41.51	-36.78	-34.17	-31.78	-26.84
50	-82.82	-76.55	-64.99	-62.22	-57.17	-49.34	-41.52	-36.47	-33.69	-31.14	-25.87
51	-86.50	-79.47	-67.54	-64.36	-58.59	-49.63	-40.67	-34.89	-31.71	-28.79	-22.76
52	-90.07	-82.23	-69.92	-66.31	-59.76	-49.61	-39.46	-32.92	-29.31	-26.00	-19.16
53	-92.78	-85.22	-71.56	-67.57	-60.34	-49.12	-37.90	-30.66	-26.68	-23.02	-15.46
54	-95.35	-87.76	-74.15	-67.23	-60.09	-49.03	-37.97	-30.83	-26.90	-23.29	-15.84
55	-97.22	-89.12	-75.14	-68.80	-60.92	-48.70	-36.49	-28.61	-24.27	-20.28	-12.05
56	-98.52	-90.38	-76.46	-68.82	-60.39	-47.33	-34.26	-25.84	-21.20	-16.94	-8.13
57	-99.40	-91.38	-77.01	-70.25	-61.61	-48.22	-34.82	-26.18	-21.43	-17.05	-8.03
58	-99.04	-90.38	-75.70	-70.61	-61.36	-47.01	-32.67	-23.42	-18.33	-13.65	-3.99
59	-98.13	-89.30	-75.95	-70.56	-60.77	-45.59	-30.42	-20.63	-15.24	-10.29	-0.06
60	-97.41	-87.67	-75.80	-70.80	-64.57	-47.15	-29.73	-18.49	-12.31	-6.62	5.11
61	-93.72	-82.81	-71.77	-61.32	-45.12	-45.12	-28.92	-18.47	-12.72	-7.43	3.48
62	-88.08	-77.97	-67.75	-58.08	-43.08	-43.08	-28.08	-18.41	-13.08	-8.19	1.92
63	-82.75	-73.39	-63.91	-54.95	-41.05	-41.05	-27.15	-18.19	-13.25	-8.71	0.65
64	-77.11	-68.55	-59.41	-50.90	-39.01	-39.01	-26.31	-18.12	-13.61	-9.47	-0.91
65	-71.48	-63.73	-53.38	-45.88	-36.98	-36.98	-25.48	-18.06	-13.98	-10.23	-2.44
66	-65.84	-58.90	-49.54	-41.88	-34.94	-34.94	-24.64	-18.00	-14.34	-10.98	-4.04
67	-60.21	-54.08	-45.11	-37.88	-32.91	-32.91	-23.81	-17.94	-14.71	-11.74	-5.61
68	-54.87	-49.68	-40.87	-33.87	-30.87	-30.87	-22.87	-17.71	-14.87	-12.26	-6.87
69	-49.24	-44.66	-36.44	-28.84	-26.84	-26.84	-22.04	-17.65	-15.24	-13.02	-8.44
70	-43.69	-39.83	-31.00	-24.80	-22.80	-22.80	-21.20	-17.59	-15.60	-13.77	-10.00

TABLE 10.8. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS

90 DEGREE FLIGHT AZIMUTH

AUGUST

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.20	-5.71	-4.99	-4.21	-2.78	-1.57	1.64	3.07	3.35	4.57	6.06
1	-13.07	-10.09	-8.65	-7.08	-4.23	-1.19	4.61	7.46	9.03	10.47	13.45
2	-12.49	-9.54	-8.11	-6.55	-3.73	-0.65	5.03	7.45	7.41	10.84	13.79
3	-12.75	-9.69	-8.21	-6.60	-3.67	-0.87	5.41	8.34	9.95	11.43	14.49
4	-13.05	-9.90	-8.37	-6.71	-3.69	-0.99	5.67	8.69	10.35	11.88	15.03
5	-13.95	-10.59	-8.96	-7.15	-3.97	-1.02	6.01	9.23	11.00	12.63	15.99
6	-14.59	-11.16	-9.50	-7.63	-4.41	-0.68	5.77	9.05	10.56	12.52	15.95
7	-14.99	-11.55	-9.88	-7.67	-4.77	-0.34	5.45	8.75	10.56	12.23	15.67
8	-15.99	-12.39	-10.55	-8.75	-5.31	-0.03	5.37	9.31	10.71	12.45	16.05
9	-17.62	-13.71	-11.82	-9.76	-6.02	-0.22	5.58	9.32	11.38	13.27	17.18
10	-20.45	-15.92	-13.73	-11.34	-7.01	-0.23	6.43	10.76	13.15	15.34	19.87
11	-23.88	-18.63	-16.00	-13.31	-8.28	-0.48	7.52	12.35	15.12	17.67	22.92
12	-26.96	-21.07	-18.21	-15.10	-9.46	-0.71	8.04	13.68	16.79	19.65	25.54
13	-27.52	-21.82	-18.88	-15.67	-9.84	-0.80	8.24	14.07	17.28	20.23	26.32
14	-25.58	-20.24	-17.60	-14.73	-9.52	-1.44	6.64	11.85	14.72	17.36	22.80
15	-21.08	-16.89	-14.86	-12.65	-8.64	-2.42	3.80	7.81	10.02	12.05	16.24
16	-17.28	-14.22	-12.74	-11.13	-7.20	-3.66	3.88	3.81	5.42	6.90	9.95
17	-16.71	-14.23	-12.07	-11.72	-6.35	-5.67	-1.99	3.33	1.00	2.89	5.37
18	-17.23	-15.13	-14.12	-13.02	-11.01	-7.90	-4.79	-2.78	-1.69	-0.67	1.43
19	-19.99	-17.85	-16.81	-15.68	-13.63	-10.45	-7.27	-5.22	-3.05	-1.91	-0.91
20	-23.46	-21.10	-19.96	-18.72	-16.46	-12.96	-9.46	-7.20	-5.96	-4.82	-2.46
21	-25.22	-22.88	-21.74	-20.50	-18.26	-14.78	-11.30	-9.06	-7.82	-6.68	-4.34
22	-25.30	-24.05	-22.36	-21.77	-19.62	-16.23	-12.94	-10.79	-9.60	-8.51	-6.26
23	-27.54	-25.24	-24.12	-22.91	-20.70	-17.28	-13.86	-11.61	-10.44	-9.32	-7.02
24	-29.25	-26.77	-25.57	-24.26	-21.89	-18.21	-14.53	-12.16	-10.85	-9.65	-7.17
25	-30.75	-28.14	-26.87	-25.49	-22.99	-19.11	-15.23	-12.73	-11.35	-10.08	-7.47
26	-32.19	-29.35	-27.94	-26.49	-23.77	-19.56	-15.35	-12.63	-11.14	-9.77	-6.93
27	-33.64	-30.64	-29.18	-27.61	-24.74	-20.29	-15.84	-12.97	-11.39	-9.94	-6.99
28	-32.36	-29.74	-28.47	-27.08	-24.57	-20.68	-16.78	-14.27	-12.69	-11.62	-9.00
29	-33.31	-30.70	-29.44	-28.07	-25.57	-21.71	-17.84	-15.35	-13.97	-12.71	-10.11
30	-34.79	-31.96	-30.59	-29.10	-26.39	-22.19	-17.99	-15.28	-13.78	-12.41	-9.58
31	-36.20	-33.18	-31.72	-30.12	-27.23	-22.74	-18.25	-15.36	-13.76	-12.30	-9.28
32	-37.49	-34.14	-32.51	-30.75	-27.54	-22.57	-17.59	-14.38	-12.62	-10.99	-7.64
33	-37.56	-34.18	-32.55	-30.77	-27.54	-22.53	-17.51	-14.28	-12.50	-10.87	-7.49
34	-38.30	-35.31	-33.57	-31.68	-28.25	-22.92	-17.59	-14.16	-12.26	-10.53	-6.98
35	-42.67	-38.42	-36.36	-34.12	-30.05	-23.74	-17.43	-13.36	-11.11	-9.06	-6.80
36	-46.37	-41.42	-39.02	-36.41	-31.67	-24.33	-16.98	-12.24	-9.63	-7.23	-2.29
37	-47.05	-42.17	-39.81	-37.24	-32.57	-25.33	-18.09	-13.42	-10.44	-8.48	-3.60
38	-49.97	-44.58	-41.97	-39.13	-33.97	-25.96	-17.96	-12.80	-9.96	-7.35	-1.96
39	-49.49	-44.29	-41.77	-39.02	-34.04	-26.31	-18.58	-13.60	-10.85	-8.33	-3.12
40	-52.53	-46.88	-44.14	-41.16	-35.75	-27.35	-18.96	-13.55	-10.57	-7.83	-2.18
41	-51.95	-46.72	-44.19	-41.44	-35.44	-26.68	-18.93	-13.92	-13.17	-10.64	-5.42
42	-56.64	-50.60	-47.68	-44.49	-38.72	-29.76	-20.80	-15.02	-11.84	-8.91	-2.88
43	-58.62	-52.63	-49.78	-46.58	-40.85	-31.96	-23.07	-17.34	-14.19	-11.29	-5.30
44	-65.39	-58.07	-54.53	-50.67	-43.67	-32.81	-21.95	-14.95	-11.09	-7.55	-2.24
45	-66.19	-59.02	-55.55	-51.77	-44.91	-34.27	-23.63	-16.77	-12.99	-9.52	-2.36
46	-67.56	-60.16	-56.58	-52.68	-46.60	-34.62	-23.64	-16.56	-12.66	-9.08	-1.64
47	-63.22	-61.53	-57.80	-53.75	-46.38	-34.96	-23.54	-16.17	-12.12	-8.39	-0.70
48	-67.06	-69.79	-66.27	-62.44	-48.48	-34.69	-23.90	-16.95	-13.11	-9.59	-2.32
49	-66.01	-68.79	-65.30	-61.49	-48.58	-33.86	-23.14	-16.23	-12.42	-8.92	-1.70
50	-66.50	-69.10	-65.51	-61.60	-48.51	-33.51	-22.52	-15.42	-11.52	-7.93	-0.52
51	-69.55	-71.55	-67.62	-63.35	-48.60	-33.57	-21.54	-13.79	-9.52	-5.59	2.51
52	-70.03	-71.73	-67.71	-63.33	-48.38	-33.06	-20.74	-12.80	-8.42	-4.40	3.90
53	-70.24	-71.44	-67.17	-62.53	-44.10	-31.03	-17.96	-9.53	-4.89	-0.62	8.18
54	-76.40	-75.86	-70.75	-65.20	-48.10	-29.46	-13.81	-3.72	1.84	6.95	17.49
55	-77.80	-76.54	-71.08	-65.14	-44.36	-27.63	-10.91	-1.12	5.81	11.27	22.54
56	-78.46	-76.31	-70.43	-64.03	-42.40	-24.37	-6.34	5.28	11.69	17.57	29.71
57	-77.68	-75.36	-69.40	-62.90	-41.11	-22.83	-4.54	7.25	13.75	19.71	32.03
58	-81.82	-78.16	-71.55	-64.35	-41.27	-21.00	-7.73	12.35	19.55	26.16	39.82
59	-80.25	-75.53	-68.40	-60.65	-36.56	-14.71	7.14	21.23	28.98	36.11	50.83
60	-79.26	-74.98	-68.06	-60.53	-36.86	-15.65	5.55	19.22	26.75	33.67	47.95
61	-73.48	-68.33	-64.00	-57.11	-34.60	-15.20	4.20	16.71	23.60	29.93	43.00
62	-67.85	-65.93	-60.19	-53.86	-32.45	-14.75	2.95	14.36	20.65	26.43	38.35
63	-61.99	-61.28	-56.09	-48.44	-30.19	-14.29	1.61	11.86	17.51	22.70	33.41
64	-56.14	-56.64	-52.04	-47.03	-27.94	-13.84	0.26	9.35	14.36	18.96	28.46
65	-50.58	-52.23	-48.18	-43.78	-25.78	-13.78	-0.98	7.02	11.42	15.47	23.82
66	-44.72	-47.58	-44.12	-40.36	-23.52	-12.92	-2.32	4.52	8.28	11.74	18.84
67	-38.87	-42.94	-40.07	-36.95	-21.27	-12.47	-3.67	2.01	5.13	8.00	13.93
68	-33.01	-38.29	-36.01	-33.52	-19.01	-12.01	-5.01	-0.50	1.99	4.27	8.99
69	-27.46	-33.83	-32.06	-29.28	-16.86	-11.56	-6.26	-2.84	-0.96	-0.77	4.34
70	-21.60	-29.24	-28.10	-26.86	-14.60	-11.10	-7.60	-5.34	-4.10	-2.96	-0.60

TABLE 10.9. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

SEPTEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.39	-8.42	-7.47	-6.43	-4.55	-1.63	1.29	3.17	4.21	5.18	7.13
1	-19.67	-15.72	-13.80	-11.72	-7.93	-2.06	3.81	7.60	9.69	11.60	15.55
2	-19.28	-15.10	-13.08	-10.88	-6.89	-1.68	5.52	9.52	11.72	13.74	17.92
3	-18.23	-14.08	-12.07	-9.88	-5.91	-1.25	6.41	10.38	12.57	14.58	18.77
4	-17.55	-13.43	-11.43	-9.26	-5.31	-0.81	6.93	10.98	13.25	15.25	19.17
5	-17.04	-13.60	-11.54	-9.30	-5.24	-1.06	7.36	11.42	13.66	15.72	19.96
6	-18.03	-13.70	-11.61	-9.33	-5.19	-1.23	7.65	11.79	14.27	16.16	20.49
7	-18.89	-14.29	-12.06	-9.63	-5.23	-1.60	8.43	12.83	15.26	17.49	22.08
8	-19.77	-14.94	-12.45	-9.85	-5.13	-2.19	9.51	14.23	16.83	19.27	24.15
9	-20.51	-15.20	-12.63	-9.83	-4.75	-3.13	11.01	16.09	18.80	21.46	26.17
10	-22.32	-16.39	-13.02	-10.40	-4.72	-4.08	12.89	18.56	21.09	24.55	32.43
11	-24.42	-17.83	-14.64	-11.17	-4.86	-4.92	14.70	21.01	24.48	27.67	34.26
12	-25.13	-18.14	-14.75	-11.08	-4.39	-5.98	16.35	23.04	26.72	30.20	37.29
13	-26.43	-19.11	-15.67	-11.71	-4.71	-6.15	17.61	24.61	27.37	31.41	38.72
14	-25.52	-18.68	-15.37	-11.77	-5.22	-4.93	15.08	21.63	25.23	29.54	35.29
15	-22.99	-17.25	-14.47	-11.44	-5.95	-2.57	11.09	16.58	19.61	22.36	28.13
16	-20.00	-15.49	-13.30	-10.92	-6.60	-1.00	6.80	11.42	13.52	15.69	25.22
17	-18.46	-14.74	-12.94	-10.98	-7.42	-1.90	3.62	7.18	9.14	10.94	14.66
18	-17.77	-14.66	-13.15	-11.51	-8.53	-3.91	-7.1	3.69	5.37	6.94	9.95
19	-18.40	-15.64	-14.31	-12.86	-10.22	-6.13	-2.04	-6.0	2.55	3.38	6.14
20	-20.13	-17.44	-16.13	-14.71	-12.13	-8.13	-4.13	-1.55	-1.37	-1.10	1.37
21	-20.58	-18.14	-16.96	-15.67	-13.34	-9.72	-6.10	-3.77	-2.48	-1.30	1.14
22	-21.68	-19.12	-17.97	-16.72	-14.46	-10.95	-7.44	-5.18	-3.93	-2.74	-1.42
23	-22.81	-20.34	-19.14	-17.84	-15.47	-11.80	-8.13	-6.78	-4.46	-3.26	-1.79
24	-23.84	-21.25	-20.00	-19.64	-16.16	-12.32	-8.48	-6.00	-4.64	-3.39	-1.92
25	-25.35	-22.55	-21.20	-19.73	-17.05	-12.90	-8.75	-6.07	-4.60	-3.25	-1.95
26	-25.99	-23.98	-22.33	-20.74	-17.77	-13.16	-8.55	-5.58	-4.22	-3.44	-1.67
27	-26.38	-24.98	-22.33	-21.54	-18.28	-13.23	-8.18	-4.82	-3.27	-1.42	1.32
28	-26.85	-25.66	-22.12	-20.44	-17.39	-12.66	-7.93	-4.88	-3.20	-1.66	1.83
29	-28.98	-25.10	-23.41	-21.57	-18.23	-13.05	-7.88	-4.54	-2.70	-1.01	2.49
30	-28.15	-24.61	-22.90	-21.03	-17.65	-12.40	-7.15	-3.76	-1.90	-1.18	3.35
31	-29.19	-25.38	-23.53	-21.53	-17.88	-12.23	-6.58	-2.93	-1.93	-1.32	4.72
32	-29.10	-25.25	-23.38	-21.36	-17.67	-11.96	-6.25	-2.56	-1.53	-1.33	5.18
33	-30.00	-25.83	-23.82	-21.62	-17.64	-11.46	-5.28	-1.29	-1.90	-2.92	7.08
34	-31.03	-26.80	-24.15	-21.70	-17.26	-10.38	-3.49	-0.95	-3.39	-5.64	10.28
35	-31.95	-26.96	-24.54	-21.91	-17.13	-9.72	-2.31	2.47	-5.11	-7.52	12.52
36	-31.27	-26.39	-24.08	-21.47	-16.80	-9.57	-2.34	2.32	-4.89	-7.25	12.12
37	-32.78	-27.63	-25.13	-22.41	-17.47	-9.81	-2.16	2.78	-5.50	-9.00	13.15
38	-34.06	-28.74	-26.16	-23.36	-18.27	-10.37	-2.47	2.62	-5.42	-8.00	13.32
39	-34.05	-28.76	-26.19	-23.40	-18.34	-10.49	-2.64	2.43	-5.22	-7.78	13.07
40	-34.53	-29.13	-26.47	-23.58	-18.32	-10.16	-2.01	3.25	-6.15	-8.81	14.30
41	-36.14	-31.79	-28.72	-25.38	-19.31	-9.90	-1.48	5.59	-8.93	-12.00	19.34
42	-39.47	-32.94	-29.78	-26.34	-20.09	-10.40	-1.71	5.53	-8.98	-12.14	18.66
43	-44.88	-37.55	-33.99	-30.12	-23.10	-12.20	-1.31	5.72	-9.59	-13.14	20.48
44	-42.80	-35.80	-32.40	-28.71	-22.01	-11.61	-1.21	5.50	-9.19	-12.58	19.59
45	-40.06	-33.31	-30.05	-26.49	-20.03	-10.02	-1.01	6.45	-10.01	-13.27	20.02
46	-36.54	-30.34	-27.34	-24.07	-18.14	-8.93	-0.27	6.20	-9.47	-12.47	18.67
47	-36.00	-31.34	-28.11	-24.60	-18.22	-9.33	1.56	7.94	-11.46	-14.68	21.35
48	-38.52	-31.73	-28.44	-24.86	-18.35	-8.27	1.82	8.32	-11.90	-15.19	21.99
49	-37.06	-30.39	-27.17	-23.65	-17.27	-7.37	2.53	8.91	-12.42	-15.65	22.32
50	-36.83	-29.73	-26.29	-22.54	-15.74	-5.20	5.35	12.15	-15.89	-19.33	26.44
51	-41.10	-33.06	-29.16	-24.92	-17.23	-5.29	6.64	14.34	-18.57	-22.47	30.51
52	-43.52	-35.18	-31.18	-26.73	-18.75	-6.36	6.03	14.02	-18.42	-22.46	30.81
53	-44.98	-36.08	-31.77	-27.07	-18.55	-5.33	7.88	16.41	-21.10	-25.41	34.31
54	-43.42	-34.28	-29.85	-25.03	-16.28	-2.72	10.85	19.60	-24.42	-28.85	37.99
55	-42.72	-33.38	-28.86	-23.94	-15.00	-1.14	12.72	21.65	-26.57	-31.10	40.43
56	-41.55	-32.51	-28.12	-23.36	-14.70	-1.27	12.15	20.81	-25.58	-29.96	39.00
57	-41.31	-32.13	-27.68	-22.84	-14.05	-1.42	13.21	22.00	-26.84	-31.29	40.47
58	-39.37	-29.69	-25.00	-19.90	-10.64	3.72	18.09	27.35	-32.45	-37.14	45.81
59	-35.17	-26.50	-22.29	-17.72	-9.41	3.47	16.35	24.65	-29.23	-33.43	42.11
60	-45.47	-34.54	-28.75	-22.46	-11.03	6.69	24.41	35.84	-42.14	-47.92	59.86
61	-45.81	-34.09	-28.41	-22.23	-11.01	6.39	23.79	35.01	-41.19	-46.87	58.54
62	-44.91	-33.46	-27.91	-21.87	-10.91	6.09	23.09	34.05	-40.09	-45.64	57.09
63	-44.31	-33.06	-27.61	-21.68	-10.91	5.79	22.49	33.26	-39.19	-44.64	55.89
64	-43.91	-32.43	-27.11	-21.32	-10.81	5.49	21.79	32.30	-38.09	-43.41	54.39
65	-42.80	-32.02	-26.80	-21.12	-10.80	5.20	21.20	31.52	-37.20	-42.42	53.20
66	-42.20	-31.62	-26.50	-20.92	-10.80	4.90	20.60	30.72	-36.30	-41.42	52.00
67	-41.30	-30.99	-26.00	-20.57	-10.70	4.60	19.90	29.77	-35.20	-40.19	50.50
68	-40.70	-30.59	-25.70	-20.37	-10.70	4.30	19.30	28.97	-34.30	-39.19	49.30
69	-39.88	-29.96	-25.20	-20.02	-10.60	4.00	18.60	28.02	-33.20	-37.96	47.80
70	-39.20	-29.57	-24.90	-19.82	-10.60	3.70	18.00	27.22	-32.30	-36.97	46.60

TABLE 10.10. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS

90 DEGREE FLIGHT AZIMUTH

OCTOBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.55	-8.39	-7.35	-6.21	-4.15	-2.95	2.25	4.31	5.45	6.49	8.65
1	-19.23	-15.26	-13.34	-11.25	-7.45	-1.56	4.33	8.13	10.22	12.14	16.11
2	-17.52	-13.38	-11.38	-9.20	-5.24	.90	7.04	11.00	13.18	15.18	19.32
3	-16.10	-11.87	-9.82	-7.53	-3.54	2.74	9.02	13.07	15.30	17.35	21.58
4	-15.24	-10.84	-8.71	-6.39	-2.18	4.35	10.88	15.09	17.41	19.54	23.94
5	-14.86	-10.16	-7.80	-5.41	-.92	6.05	13.02	17.51	19.99	22.26	26.96
6	-15.02	-9.90	-7.42	-4.72	.19	7.80	15.41	20.32	23.02	25.50	30.63
7	-16.13	-10.30	-7.43	-4.41	1.17	9.82	18.47	24.05	27.12	29.94	35.77
8	-16.92	-10.39	-7.22	-3.78	2.48	12.18	21.68	28.14	31.58	34.75	41.23
9	-18.32	-11.39	-7.75	-3.78	3.42	14.59	25.76	32.96	36.93	40.57	48.10
10	-20.62	-12.21	-8.13	-3.69	4.36	16.85	29.34	37.39	41.83	45.91	54.32
11	-21.65	-12.49	-8.06	-3.23	5.53	19.12	32.71	41.47	46.30	50.73	59.89
12	-20.37	-11.16	-6.70	-1.85	6.97	20.64	34.31	43.13	47.98	52.44	61.65
13	-19.11	-10.17	-5.84	-1.13	7.43	20.70	33.37	42.53	47.24	51.57	60.51
14	-17.28	-9.16	-5.22	-.94	6.84	18.90	30.90	38.74	43.02	46.96	55.08
15	-14.64	-7.83	-4.57	-.94	5.58	15.69	25.80	32.32	35.91	39.21	46.02
16	-13.27	-7.75	-5.07	-2.10	3.13	11.33	19.53	24.82	27.73	30.41	35.93
17	-13.33	-9.13	-6.34	-4.43	-.05	6.84	13.73	18.17	20.62	22.87	27.51
18	-14.37	-10.47	-8.58	-6.52	-2.79	3.00	8.79	12.52	14.58	16.47	20.37
19	-14.35	-11.50	-9.83	-3.12	-4.91	.06	5.03	8.24	10.00	11.62	14.97
20	-15.40	-12.34	-10.80	-4.25	-6.32	-1.78	2.76	5.69	7.30	8.78	11.84
21	-15.67	-12.77	-11.37	-3.34	-7.07	-2.77	1.53	4.30	5.83	7.23	10.13
22	-16.08	-13.24	-11.88	-10.36	-7.64	-3.42	.80	3.52	5.02	6.40	9.24
23	-17.50	-14.44	-12.96	-11.35	-8.42	-3.88	.66	3.59	5.20	6.65	9.74
24	-16.38	-15.11	-13.52	-11.79	-8.66	-3.80	1.06	4.19	5.92	7.51	10.78
25	-13.76	-15.30	-13.63	-11.81	-9.50	-3.37	1.75	5.07	6.89	8.56	12.02
26	-15.87	-15.98	-14.10	-12.05	-8.33	-2.56	3.21	6.93	8.98	10.86	14.75
27	-20.36	-16.15	-14.11	-11.89	-7.86	-1.61	4.64	8.67	10.39	12.93	17.14
28	-19.02	-14.96	-13.00	-10.86	-6.98	-.96	5.06	8.94	11.08	13.05	17.10
29	-19.45	-14.99	-12.83	-10.47	-6.20	-.42	7.04	11.32	13.67	15.83	20.29
30	-20.80	-15.67	-13.19	-10.48	-5.57	2.04	9.65	14.56	17.26	19.75	24.87
31	-22.35	-16.59	-13.80	-10.77	-5.26	3.28	11.83	17.34	20.37	23.16	28.91
32	-23.33	-16.87	-13.74	-10.33	-4.15	5.44	15.03	21.21	24.62	27.75	34.21
33	-23.86	-16.67	-13.19	-9.40	-2.52	8.14	18.81	25.69	29.48	32.96	40.14
34	-23.60	-15.78	-12.00	-7.88	-.39	11.21	22.81	30.29	34.41	38.20	46.01
35	-25.14	-16.51	-12.33	-7.78	.48	13.29	26.10	34.36	38.91	43.09	51.72
36	-28.58	-18.85	-14.13	-9.00	.32	14.77	29.22	38.54	43.68	48.39	58.13
37	-32.52	-21.67	-16.41	-10.69	-.30	15.82	31.93	42.32	48.05	53.30	64.16
38	-33.38	-21.90	-16.34	-10.29	.70	17.73	34.77	45.76	51.81	57.37	68.84
39	-34.36	-22.08	-16.14	-9.67	2.08	20.30	38.52	50.27	56.74	62.69	74.97
40	-32.53	-20.10	-14.09	-7.54	4.36	22.80	41.25	53.14	59.69	65.71	78.11
41	-32.34	-19.71	-13.59	-6.94	5.15	23.90	42.64	54.73	61.39	67.50	80.13
42	-33.08	-19.95	-13.59	-6.67	5.89	25.38	44.86	57.43	64.35	70.71	83.84
43	-33.03	-19.71	-13.26	-6.24	6.52	26.29	46.06	58.82	65.84	72.29	85.61
44	-30.49	-17.50	-11.21	-4.36	8.07	27.35	46.63	59.06	65.90	72.19	85.18
45	-29.68	-16.44	-10.03	-3.06	9.61	29.25	48.89	61.55	68.53	74.94	88.17
46	-27.87	-14.69	-8.30	-1.35	11.28	30.85	50.42	63.05	70.00	76.39	89.57
47	-27.28	-13.86	-7.36	-.29	12.55	32.47	52.38	65.23	72.30	78.80	92.22
48	-24.77	-11.51	-5.09	1.90	14.60	34.28	53.96	66.66	73.65	80.07	93.33
49	-23.75	-10.26	-3.72	3.39	16.31	36.34	56.37	69.29	76.40	82.94	96.44
50	-20.96	-7.63	-1.17	5.86	18.62	38.41	58.20	70.96	77.39	84.45	97.78
51	-22.39	-8.76	-2.16	5.02	18.07	38.30	58.54	71.59	78.77	85.37	99.00
52	-19.38	-5.91	.61	7.71	20.60	40.58	60.57	73.46	80.56	87.08	100.55
53	-17.16	-4.02	2.35	9.28	21.87	41.38	60.89	73.48	80.41	86.76	99.32
54	-14.92	-1.97	4.31	11.14	23.54	42.78	62.01	74.41	81.24	87.52	100.47
55	-16.79	-3.45	3.02	10.05	22.82	42.63	62.43	75.21	82.24	88.70	102.05
56	-18.22	-4.50	2.18	9.37	22.50	42.86	63.22	76.35	83.58	90.23	103.94
57	-19.48	-5.24	1.66	9.16	22.80	43.93	65.07	78.70	86.21	93.11	107.35
58	-22.15	-7.63	-.60	7.06	20.96	42.51	64.07	77.97	85.62	92.65	107.17
59	-19.90	-6.11	.58	7.85	21.06	41.54	62.02	75.23	82.50	89.18	102.98
60	-25.02	-10.48	-3.43	4.23	18.15	39.73	61.31	75.23	82.90	89.94	104.94
61	-25.66	-11.38	-4.46	3.07	16.74	37.94	59.14	72.81	80.34	87.26	101.54
62	-26.56	-12.48	-5.66	1.76	15.24	36.14	57.04	70.52	77.94	84.76	98.84
63	-27.15	-13.34	-6.65	.63	13.85	34.35	54.85	68.07	75.35	82.04	95.85
64	-28.04	-14.43	-7.88	-.67	12.36	32.56	52.76	65.79	72.96	79.55	93.15
65	-28.93	-15.52	-9.03	-1.96	10.87	30.77	50.67	63.90	70.57	77.06	90.47
66	-29.83	-16.63	-10.23	-3.27	9.37	28.97	48.57	61.21	68.17	74.57	87.77
67	-30.72	-17.72	-11.42	-4.57	7.88	27.18	46.48	58.93	65.78	72.08	85.08
68	-31.31	-18.58	-12.41	-5.70	6.49	25.39	44.29	56.48	63.19	69.56	82.09
69	-32.21	-19.68	-13.61	-7.01	4.99	23.59	42.19	54.19	60.79	66.86	79.39
70	-33.10	-20.77	-14.80	-8.30	3.50	21.80	40.10	51.90	58.40	64.37	76.70

TABLE 10.11. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

NOVEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.09	-7.08	-6.10	-5.04	-3.11	-1.12	2.37	4.90	5.55	6.34	9.35
1	-20.60	-16.05	-13.84	-11.44	-7.08	-3.32	6.44	10.60	13.02	15.41	19.86
2	-19.23	-14.39	-12.04	-9.49	-4.85	-2.34	9.53	14.17	15.72	17.97	23.31
3	-17.53	-12.48	-10.04	-7.28	-2.55	-0.94	12.42	17.01	17.62	19.62	27.41
4	-15.76	-10.75	-8.22	-5.47	-1.93	-0.26	15.00	19.99	20.74	22.47	30.44
5	-15.62	-9.90	-7.12	-4.11	-1.36	-0.05	18.34	23.62	24.52	26.07	35.32
6	-15.51	-9.13	-6.13	-2.90	-1.25	0.03	21.01	27.05	28.05	29.37	40.77
7	-14.46	-7.75	-4.50	-1.06	-0.40	0.42	23.39	30.10	31.20	32.64	45.20
8	-14.45	-7.02	-3.57	-0.35	-0.39	0.73	25.31	32.23	33.47	35.07	50.07
9	-14.27	-6.29	-2.42	1.74	0.43	0.93	27.17	34.17	35.57	37.34	55.07
10	-15.51	-6.61	-2.30	2.33	10.31	24.12	37.33	45.35	50.24	54.45	67.75
11	-14.20	-4.96	-1.40	4.38	13.27	26.93	40.64	48.42	54.42	58.82	75.06
12	-13.28	-3.79	-0.37	5.43	14.97	29.02	43.12	52.21	59.22	64.82	82.32
13	-10.48	-1.55	2.76	7.40	16.04	27.30	45.56	54.11	62.22	69.17	88.06
14	-8.20	-0.24	3.62	7.12	15.44	27.75	47.03	56.73	65.73	73.76	94.72
15	-5.97	0.64	3.84	7.32	15.05	28.46	48.27	58.61	68.61	77.62	100.00
16	-5.24	-0.57	2.18	7.17	10.60	19.02	47.44	58.37	68.37	77.38	100.00
17	-7.78	-2.93	-0.43	2.18	6.32	14.77	46.02	57.38	67.38	76.39	100.00
18	-9.39	-5.50	-3.43	-1.17	3.03	7.54	44.05	55.25	65.25	74.26	100.00
19	-10.85	-7.02	-5.10	-3.17	1.40	6.16	41.27	52.45	62.45	71.46	100.00
20	-12.06	-8.44	-6.03	-4.73	-1.37	4.05	38.42	49.59	59.59	68.60	100.00
21	-13.45	-9.70	-7.60	-5.92	-2.33	2.23	35.79	46.71	56.71	65.72	100.00
22	-14.33	-10.40	-8.40	-6.42	-3.65	1.13	33.30	44.00	54.00	63.01	100.00
23	-14.74	-10.78	-8.66	-6.27	-4.28	0.20	31.00	41.57	51.57	60.58	100.00
24	-15.29	-10.77	-8.53	-6.20	-4.37	0.34	28.89	39.38	49.38	58.39	100.00
25	-16.31	-11.23	-9.77	-8.00	-5.27	1.27	27.00	37.38	47.38	56.39	100.00
26	-16.28	-10.96	-9.24	-7.33	-5.20	1.74	25.34	35.59	45.59	54.60	100.00
27	-17.22	-11.20	-8.29	-6.12	-5.12	2.64	23.80	34.00	44.00	53.01	100.00
28	-13.80	-8.04	-5.25	-2.21	3.31	11.86	22.42	32.59	42.59	51.60	100.00
29	-13.84	-7.25	-4.21	-0.89	5.13	14.47	21.00	31.17	41.17	50.18	100.00
30	-13.80	-6.95	-3.64	-0.04	6.51	16.66	20.00	30.00	40.00	49.01	100.00
31	-11.51	-4.59	-1.24	2.41	9.04	19.32	19.00	29.00	39.00	48.02	100.00
32	-8.57	-1.61	1.76	5.42	12.08	22.40	18.00	28.00	38.00	47.03	100.00
33	-8.40	-0.72	3.00	7.05	14.40	25.80	17.00	27.00	37.00	46.04	100.00
34	-7.54	0.65	4.61	8.93	16.77	28.92	16.00	26.00	36.00	45.05	100.00
35	-6.67	1.82	5.93	10.41	18.54	31.14	15.00	25.00	35.00	44.06	100.00
36	-6.69	2.25	6.59	11.30	19.87	33.15	14.00	24.00	34.00	43.07	100.00
37	-6.20	3.08	7.58	12.47	21.36	35.14	13.00	23.00	33.00	42.08	100.00
38	-3.90	5.45	9.98	14.90	23.85	37.73	12.00	22.00	32.00	41.09	100.00
39	-1.89	6.29	12.74	17.59	26.38	40.02	11.00	21.00	31.00	40.10	100.00
40	2.59	11.65	16.07	20.87	29.60	43.13	10.00	20.00	30.00	39.11	100.00
41	5.49	14.58	18.79	23.37	31.68	44.58	9.00	19.00	29.00	38.12	100.00
42	8.34	16.90	21.05	25.56	33.76	46.46	8.00	18.00	28.00	37.13	100.00
43	10.29	18.98	23.19	27.76	36.08	48.97	7.00	17.00	27.00	36.14	100.00
44	11.95	20.82	25.12	29.80	38.29	51.45	6.00	16.00	26.00	35.15	100.00
45	11.43	21.26	26.02	31.21	40.62	55.21	5.00	15.00	25.00	34.16	100.00
46	10.43	20.94	26.08	31.57	41.63	57.24	4.00	14.00	24.00	33.17	100.00
47	12.80	23.72	29.01	34.77	45.23	61.45	3.00	13.00	23.00	32.18	100.00
48	11.59	23.43	29.16	35.40	46.73	64.31	2.00	12.00	22.00	31.19	100.00
49	12.19	24.31	30.17	36.56	48.16	66.15	1.00	11.00	21.00	30.20	100.00
50	14.15	26.49	32.47	38.98	50.80	69.12	0.00	10.00	20.00	29.21	100.00
51	13.61	26.29	32.43	39.11	51.25	70.07	0.00	9.00	19.00	28.22	100.00
52	14.27	26.94	33.07	39.75	51.88	70.69	0.00	8.00	18.00	27.23	100.00
53	13.32	26.41	32.75	39.65	52.18	71.61	0.00	7.00	17.00	26.24	100.00
54	15.67	28.57	34.81	41.61	53.95	73.09	0.00	6.00	16.00	25.25	100.00
55	15.60	28.50	34.65	41.35	53.50	72.36	0.00	5.00	15.00	24.26	100.00
56	10.72	24.62	31.36	38.69	52.00	72.65	0.00	4.00	14.00	23.27	100.00
57	8.37	23.07	30.19	37.94	52.01	73.83	0.00	3.00	13.00	22.28	100.00
58	12.59	26.26	32.87	40.07	53.15	73.43	0.00	2.00	12.00	21.29	100.00
59	22.90	36.48	40.10	46.21	57.30	74.50	0.00	1.00	11.00	20.30	100.00
60	20.56	33.16	39.27	45.91	57.98	76.69	0.00	0.00	10.00	19.31	100.00
61	19.84	31.94	37.94	44.47	56.34	74.74	0.00	0.00	9.00	18.32	100.00
62	18.49	30.68	36.59	43.02	54.69	72.79	0.00	0.00	8.00	17.33	100.00
63	17.44	29.43	35.24	41.56	53.04	70.84	0.00	0.00	7.00	16.34	100.00
64	16.39	28.18	33.89	40.10	51.39	68.89	0.00	0.00	6.00	15.35	100.00
65	15.35	26.94	32.55	38.66	49.75	66.95	0.00	0.00	5.00	14.36	100.00
66	14.60	25.92	31.40	37.37	48.20	65.00	0.00	0.00	4.00	13.37	100.00
67	13.55	24.67	30.05	35.91	46.55	63.05	0.00	0.00	3.00	12.38	100.00
68	12.50	23.41	28.70	34.45	44.90	61.10	0.00	0.00	2.00	11.39	100.00
69	11.45	22.16	27.35	33.00	43.25	59.15	0.00	0.00	1.00	10.40	100.00
70	10.40	20.91	26.00	31.54	41.60	57.20	0.00	0.00	0.00	9.41	100.00

TABLE 10.12. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

DECEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.33	-7.00	-6.00	-4.00	-2.25	.55	3.33	5.20	6.20	7.12	9.02
1	-19.26	-14.69	-12.47	-10.00	-7.68	1.11	7.90	12.03	14.69	16.91	21.48
2	-17.17	-12.73	-10.20	-7.35	-4.67	4.56	11.33	16.51	19.23	21.45	26.32
3	-14.11	-9.79	-7.31	-4.61	-2.20	7.83	15.49	20.33	23.09	25.57	30.69
4	-13.41	-7.35	-5.21	-3.20	-1.90	11.10	19.39	24.60	27.29	30.27	35.79
5	-13.23	-7.10	-4.10	-2.80	-1.60	14.67	23.17	28.04	30.27	35.24	41.37
6	-12.13	-5.60	-2.41	-1.00	-0.75	17.13	25.90	33.20	36.67	39.86	46.44
7	-12.11	-5.10	-1.60	0.27	0.31	20.25	28.17	35.17	42.04	45.00	52.95
8	-13.31	-5.00	-1.00	0.35	1.10	23.35	30.57	37.45	47.73	51.79	60.01
9	-14.15	-5.00	-1.00	0.50	1.81	26.00	32.57	40.52	54.45	58.98	68.23
10	-15.37	-5.00	-1.00	0.70	2.47	28.74	34.11	42.70	58.33	63.36	75.65
11	-14.10	-4.10	0.00	0.90	3.10	31.00	35.00	43.00	60.74	65.86	82.00
12	-12.30	-3.70	0.40	1.00	3.70	33.34	35.50	43.70	63.23	71.41	85.20
13	-7.26	1.81	6.50	11.71	21.00	36.11	40.14	48.11	64.67	69.41	79.20
14	-6.70	3.10	7.60	13.20	23.30	38.20	42.50	50.00	65.33	69.14	82.00
15	-4.19	5.67	7.30	11.50	20.72	40.72	45.22	52.00	67.00	71.87	85.73
16	-1.43	7.23	6.40	9.37	18.70	43.70	48.13	54.51	68.22	73.35	88.01
17	-4.48	1.33	4.10	7.01	16.70	40.70	45.00	51.00	65.00	70.00	85.00
18	-6.50	-1.40	1.00	3.70	16.10	40.10	45.00	51.00	65.00	70.00	85.00
19	-10.15	-5.10	-3.00	-1.00	4.00	11.21	18.33	22.90	25.45	27.77	32.67
20	-12.37	-7.40	-5.27	-3.00	1.00	1.33	15.13	19.52	21.33	24.15	28.73
21	-12.80	-6.30	-4.10	-2.00	0.70	7.19	18.66	23.10	25.53	27.71	32.60
22	-12.41	-5.00	-2.90	-1.00	0.70	7.00	18.47	22.84	25.26	27.44	32.33
23	-13.30	-6.00	-3.90	-1.70	0.70	7.00	18.47	22.84	25.26	27.44	32.33
24	-14.10	-7.00	-4.90	-2.70	1.60	1.60	17.65	22.02	24.46	26.97	33.67
25	-15.30	-8.00	-5.90	-3.70	2.50	11.00	20.47	24.24	26.42	28.37	34.37
26	-17.00	-10.00	-7.90	-5.90	3.40	11.00	20.47	24.24	26.42	28.37	34.37
27	-18.30	-11.00	-8.90	-6.90	4.30	11.00	20.47	24.24	26.42	28.37	34.37
28	-25.48	-16.00	-12.60	-8.00	7.29	13.17	26.05	34.36	38.94	43.14	51.82
29	-29.58	-19.71	-14.93	-9.73	10.38	18.38	29.03	38.48	43.69	48.47	58.34
30	-30.98	-20.39	-15.27	-10.00	10.38	18.38	29.03	38.48	43.69	48.47	58.34
31	-34.21	-22.43	-16.72	-11.28	10.50	18.27	28.77	37.76	42.05	46.00	55.97
32	-36.86	-24.14	-17.98	-12.48	10.50	18.27	28.77	37.76	42.05	46.00	55.97
33	-43.05	-28.68	-21.72	-14.14	10.50	18.27	28.77	37.76	42.05	46.00	55.97
34	-45.22	-30.03	-22.67	-14.67	10.50	18.27	28.77	37.76	42.05	46.00	55.97
35	-48.01	-32.01	-24.26	-15.83	10.50	18.27	28.77	37.76	42.05	46.00	55.97
36	-50.17	-33.52	-25.46	-16.68	10.50	18.27	28.77	37.76	42.05	46.00	55.97
37	-54.97	-37.07	-28.40	-18.96	10.50	18.27	28.77	37.76	42.05	46.00	55.97
38	-60.01	-40.86	-31.58	-21.48	10.50	18.27	28.77	37.76	42.05	46.00	55.97
39	-63.32	-43.26	-33.55	-22.98	10.50	18.27	28.77	37.76	42.05	46.00	55.97
40	-66.05	-45.16	-35.05	-24.04	10.50	18.27	28.77	37.76	42.05	46.00	55.97
41	-67.17	-45.86	-35.53	-24.30	10.50	18.27	28.77	37.76	42.05	46.00	55.97
42	-67.91	-46.47	-36.09	-24.79	10.50	18.27	28.77	37.76	42.05	46.00	55.97
43	-69.02	-47.41	-36.95	-25.57	10.50	18.27	28.77	37.76	42.05	46.00	55.97
44	-67.48	-46.21	-35.91	-24.70	10.50	18.27	28.77	37.76	42.05	46.00	55.97
45	-70.69	-48.65	-37.97	-26.36	10.50	18.27	28.77	37.76	42.05	46.00	55.97
46	-71.36	-48.99	-38.16	-26.37	10.50	18.27	28.77	37.76	42.05	46.00	55.97
47	-71.89	-49.26	-38.30	-26.37	10.50	18.27	28.77	37.76	42.05	46.00	55.97
48	-72.21	-49.40	-38.35	-26.33	10.50	18.27	28.77	37.76	42.05	46.00	55.97
49	-72.69	-49.79	-38.70	-26.64	10.50	18.27	28.77	37.76	42.05	46.00	55.97
50	-71.36	-48.76	-37.81	-25.89	10.50	18.27	28.77	37.76	42.05	46.00	55.97
51	-73.25	-50.08	-38.86	-26.64	10.50	18.27	28.77	37.76	42.05	46.00	55.97
52	-75.26	-51.89	-40.57	-28.25	10.50	18.27	28.77	37.76	42.05	46.00	55.97
53	-76.60	-52.87	-41.37	-28.86	10.50	18.27	28.77	37.76	42.05	46.00	55.97
54	-77.51	-53.40	-41.72	-29.01	10.50	18.27	28.77	37.76	42.05	46.00	55.97
55	-77.30	-52.99	-41.21	-28.40	10.50	18.27	28.77	37.76	42.05	46.00	55.97
56	-78.10	-52.87	-40.64	-27.34	10.50	18.27	28.77	37.76	42.05	46.00	55.97
57	-74.55	-49.91	-37.98	-24.99	10.50	18.27	28.77	37.76	42.05	46.00	55.97
58	-71.33	-48.44	-37.36	-25.30	10.50	18.27	28.77	37.76	42.05	46.00	55.97
59	-71.41	-48.00	-36.66	-24.32	10.50	18.27	28.77	37.76	42.05	46.00	55.97
60	-74.53	-49.71	-37.68	-24.60	10.50	18.27	28.77	37.76	42.05	46.00	55.97
61	-70.21	-46.77	-35.41	-23.05	10.50	18.27	28.77	37.76	42.05	46.00	55.97
62	-66.03	-43.93	-33.23	-21.58	10.50	18.27	28.77	37.76	42.05	46.00	55.97
63	-62.15	-41.33	-31.25	-20.28	10.50	18.27	28.77	37.76	42.05	46.00	55.97
64	-57.37	-38.50	-29.07	-18.81	10.50	18.27	28.77	37.76	42.05	46.00	55.97
65	-53.79	-35.67	-26.89	-17.34	10.50	18.27	28.77	37.76	42.05	46.00	55.97
66	-49.62	-32.84	-24.72	-15.88	10.50	18.27	28.77	37.76	42.05	46.00	55.97
67	-45.44	-30.01	-22.54	-14.41	10.50	18.27	28.77	37.76	42.05	46.00	55.97
68	-41.56	-27.41	-20.56	-13.10	10.50	18.27	28.77	37.76	42.05	46.00	55.97
69	-37.38	-24.58	-18.38	-11.63	10.50	18.27	28.77	37.76	42.05	46.00	55.97
70	-33.20	-21.75	-16.20	-10.16	10.50	18.27	28.77	37.76	42.05	46.00	55.97

TABLE 11.1. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

JANUARY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.13	-8.83	-7.72	-6.51	-4.31	-2.90	2.51	4.71	5.92	7.03	9.33
1	-18.44	-14.03	-11.99	-9.70	-5.44	-3.1	7.36	11.52	13.31	15.21	20.25
2	-18.57	-14.12	-11.97	-9.63	-5.37	-3.23	7.83	12.03	14.43	16.58	21.63
3	-20.77	-15.78	-13.36	-10.73	-5.95	-3.46	8.87	13.65	16.28	18.70	23.59
4	-22.29	-16.87	-14.24	-11.38	-6.19	-3.66	9.91	15.10	17.96	20.59	26.01
5	-24.23	-18.28	-15.40	-12.26	-6.57	-3.26	11.09	16.78	19.32	22.30	28.75
6	-26.33	-19.77	-16.59	-13.13	-6.85	-2.89	12.63	18.91	22.37	25.55	32.11
7	-28.84	-21.58	-18.06	-14.23	-7.23	-3.50	14.28	21.23	25.06	28.59	35.34
8	-31.68	-23.70	-19.84	-15.64	-7.60	-3.94	15.68	23.72	27.52	31.36	38.38
9	-34.29	-25.65	-21.47	-16.92	-8.05	-4.17	16.99	25.26	29.31	33.29	42.67
10	-35.76	-26.69	-22.29	-17.51	-8.82	-4.65	18.12	26.81	31.59	35.39	45.67
11	-38.72	-28.93	-24.27	-19.14	-9.82	-4.63	19.09	29.40	33.53	38.25	47.99
12	-39.34	-28.65	-23.97	-18.88	-9.63	-4.71	19.05	28.30	33.29	38.72	47.72
13	-32.67	-24.30	-20.25	-15.84	-7.83	-4.59	17.01	25.02	29.43	33.48	41.95
14	-24.42	-21.15	-17.63	-13.80	-6.84	-3.95	14.74	21.78	25.53	29.05	36.32
15	-25.85	-19.19	-15.97	-12.46	-6.09	-3.79	13.67	20.04	23.55	26.77	33.43
16	-21.85	-16.17	-13.42	-10.42	-4.99	-3.44	11.87	17.31	20.30	23.01	28.77
17	-19.70	-14.70	-12.28	-9.65	-4.86	-2.56	9.98	14.77	17.40	19.92	24.87
18	-15.81	-11.84	-9.91	-7.81	-4.01	-1.89	7.79	11.67	13.69	15.62	19.52
19	-12.61	-9.50	-7.93	-6.35	-3.37	-1.25	5.87	9.95	10.49	12.00	15.11
20	-11.16	-8.51	-7.22	-5.82	-2.28	-0.66	4.60	7.14	8.54	9.87	12.48
21	-10.84	-8.33	-7.11	-5.79	-3.39	-0.75	4.08	6.49	7.81	9.03	11.54
22	-10.95	-8.38	-7.13	-5.77	-3.31	-0.51	4.33	6.79	8.15	9.40	11.97
23	-11.48	-8.71	-7.37	-5.91	-3.26	-0.85	4.96	7.61	9.07	10.41	13.13
24	-11.03	-8.33	-7.02	-5.60	-3.01	-1.00	5.01	7.60	9.02	10.33	13.03
25	-11.75	-9.45	-7.44	-5.91	-3.13	-1.18	5.49	8.27	9.80	11.21	14.11
26	-12.91	-9.69	-8.13	-6.43	-3.35	-1.43	6.21	9.29	10.99	12.55	15.77
27	-14.74	-10.58	-8.80	-6.87	-3.36	-2.08	7.52	11.03	12.96	14.74	18.47
28	-11.40	-8.01	-6.37	-4.59	-1.35	-3.68	8.71	11.95	13.74	15.38	18.77
29	-12.26	-8.60	-6.83	-4.91	-1.41	-4.01	9.44	12.90	14.86	16.63	20.29
30	-12.65	-8.76	-6.88	-4.83	-1.11	-4.65	10.42	14.14	16.19	18.07	21.96
31	-13.12	-8.97	-6.95	-4.76	-1.78	-5.09	11.56	15.54	17.73	19.75	23.90
32	-16.13	-11.54	-9.08	-6.58	-2.03	-5.31	12.06	16.61	19.11	21.41	26.16
33	-18.54	-13.47	-11.02	-8.35	-3.51	-4.01	11.52	16.37	19.33	21.49	26.55
34	-20.32	-15.47	-12.88	-9.97	-4.76	-3.31	11.39	16.60	19.46	22.10	27.54
35	-22.31	-17.08	-14.26	-11.19	-5.61	-3.04	11.69	17.26	20.33	23.16	28.98
36	-21.62	-16.89	-14.11	-11.08	-5.58	-2.94	11.47	16.97	20.00	22.78	28.52
37	-22.90	-17.13	-14.34	-11.30	-5.77	-2.79	11.36	16.88	19.92	22.72	28.49
38	-22.65	-16.82	-13.98	-10.91	-5.32	-3.34	12.01	17.60	20.67	23.50	29.34
39	-22.17	-16.30	-13.46	-10.36	-4.74	-3.97	12.68	18.29	21.39	24.23	30.10
40	-24.78	-18.80	-15.92	-10.79	-5.10	-3.72	12.55	18.24	21.37	24.26	30.20
41	-21.04	-15.30	-12.52	-9.50	-4.01	-4.51	13.03	18.52	21.54	24.32	30.06
42	-23.53	-17.07	-13.91	-10.48	-4.24	-5.43	15.11	21.35	24.78	27.94	34.45
43	-23.52	-16.75	-13.47	-9.90	-3.42	-6.63	16.68	23.16	26.73	30.01	36.78
44	-23.14	-16.19	-12.83	-9.17	-2.53	-7.78	18.08	24.73	28.39	31.75	38.69
45	-23.22	-16.07	-12.60	-8.83	-1.99	-8.62	19.23	26.08	29.85	33.31	40.46
46	-24.96	-17.09	-13.27	-9.12	-1.58	-10.11	21.80	29.34	33.49	37.30	45.18
47	-28.00	-19.12	-14.82	-10.14	-1.63	-11.55	24.74	33.24	37.92	42.22	51.10
48	-21.22	-16.25	-13.21	-9.18	-1.59	-12.72	26.03	34.62	39.35	43.69	52.66
49	-25.03	-19.73	-15.23	-10.33	-1.44	-12.36	26.16	35.05	39.95	44.45	53.75
50	-29.00	-19.84	-15.41	-10.58	-1.82	-11.78	25.37	34.11	38.96	43.40	52.55
51	-28.62	-19.76	-15.47	-10.80	-2.31	-10.84	24.00	32.48	37.15	41.44	50.31
52	-30.57	-21.57	-17.22	-12.48	-3.86	-9.49	22.84	31.45	36.19	40.55	49.55
53	-32.35	-23.50	-18.92	-13.94	-4.90	-9.12	23.14	32.19	37.17	41.74	51.19
54	-31.05	-21.82	-17.35	-12.48	-3.64	-10.07	23.77	32.61	37.48	41.95	51.18
55	-29.79	-21.13	-16.94	-12.37	-4.08	-8.77	21.62	29.91	34.47	38.67	47.33
56	-31.18	-21.98	-17.52	-12.67	-3.86	-9.80	23.46	32.27	37.12	41.58	50.78
57	-34.54	-24.34	-19.39	-14.02	-4.25	-10.89	26.04	35.81	41.18	46.13	56.33
58	-45.98	-33.30	-27.15	-20.48	-8.34	-10.48	29.30	41.43	48.11	54.26	66.93
59	-46.67	-34.39	-28.44	-21.97	-10.21	-8.02	26.25	38.00	44.48	50.43	62.71
60	-51.60	-38.73	-32.50	-25.72	-13.41	-5.69	24.78	37.10	43.88	50.11	62.97
61	-47.66	-35.74	-29.96	-23.67	-12.26	-5.44	23.14	34.55	40.84	46.62	58.54
62	-43.41	-32.50	-27.21	-21.46	-11.01	-5.19	21.39	31.84	37.59	42.88	53.79
63	-39.46	-29.49	-24.66	-19.40	-9.86	-4.94	19.74	29.28	34.54	39.37	49.34
64	-35.21	-26.25	-21.91	-17.19	-8.61	-4.69	17.99	26.57	31.29	35.63	44.59
65	-31.28	-23.23	-19.35	-15.12	-7.45	-4.45	16.35	24.02	28.25	32.13	40.15
66	-27.00	-19.99	-16.60	-12.91	-6.20	-4.20	14.60	21.31	25.00	28.39	35.40
67	-23.05	-16.99	-14.05	-10.85	-5.05	-3.95	12.95	18.75	21.95	24.89	30.95
68	-18.80	-13.75	-11.30	-8.64	-3.80	-3.70	11.20	16.04	18.70	21.15	26.20
69	-14.85	-10.74	-8.75	-6.58	-2.65	-3.45	9.55	13.48	15.65	17.64	21.75
70	-10.60	-7.50	-6.00	-4.37	-1.40	-3.20	7.80	10.77	12.40	13.90	17.00

TABLE 11.2. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH
FEBRUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.31	-8.73	-7.57	-6.24	-3.83	-0.09	3.65	6.06	7.39	8.61	11.13
1	-17.27	-12.86	-10.73	-8.41	-4.19	2.35	8.89	13.11	15.43	17.56	21.97
2	-17.66	-13.23	-11.04	-8.74	-4.50	2.08	8.66	12.90	15.24	17.33	21.92
3	-19.44	-14.54	-12.16	-9.57	-4.88	2.40	9.68	14.37	16.96	19.34	24.24
4	-20.78	-15.45	-12.87	-10.06	-4.96	2.95	10.86	15.96	18.77	21.35	26.68
5	-22.88	-16.97	-14.11	-11.00	-5.34	3.43	12.20	17.85	20.97	23.83	29.74
6	-23.98	-17.60	-14.56	-11.25	-5.24	4.08	13.40	19.41	22.72	25.76	32.04
7	-26.05	-19.19	-15.87	-12.26	-5.69	4.49	14.67	21.24	24.85	28.17	35.03
8	-28.66	-21.18	-17.55	-13.60	-6.44	4.67	15.78	22.94	26.89	30.52	38.08
9	-31.33	-23.20	-19.28	-14.97	-7.19	4.88	16.95	24.73	29.02	32.96	41.09
10	-35.20	-26.73	-21.88	-17.15	-8.56	4.76	18.08	26.67	31.40	35.75	44.72
11	-38.65	-28.92	-24.20	-19.07	-9.75	4.70	19.15	28.47	33.60	38.32	48.05
12	-38.17	-28.52	-23.84	-18.75	-9.51	4.82	19.15	28.39	33.48	38.16	47.81
13	-33.34	-24.80	-20.66	-16.16	-7.98	4.70	17.38	25.56	30.05	34.20	42.74
14	-29.52	-21.94	-18.27	-14.28	-7.02	4.23	15.48	22.74	26.73	30.48	37.38
15	-25.17	-18.73	-15.61	-12.22	-6.05	3.51	13.07	19.24	22.63	25.75	32.19
16	-22.04	-16.39	-13.65	-10.67	-5.26	3.13	11.52	16.93	19.31	22.65	29.30
17	-19.01	-14.25	-11.98	-9.43	-4.87	2.20	9.27	13.83	16.34	18.65	23.41
18	-16.03	-12.11	-10.21	-8.14	-4.39	1.43	7.25	11.00	13.07	14.97	18.93
19	-13.03	-9.86	-8.32	-6.65	-3.61	1.10	5.81	8.85	10.52	12.06	15.23
20	-11.57	-8.80	-7.46	-6.00	-3.35	0.76	4.87	7.52	8.38	10.32	13.09
21	-13.76	-10.67	-9.17	-7.54	-4.58	0.01	4.60	7.56	9.19	10.69	13.78
22	-12.75	-9.99	-8.65	-7.19	-4.55	-0.45	3.65	6.29	7.75	9.09	11.85
23	-12.27	-9.55	-8.24	-6.81	-4.21	-1.18	3.85	6.45	7.88	9.19	11.91
24	-11.51	-8.93	-7.68	-6.32	-3.85	-0.72	3.81	6.28	7.64	8.89	11.47
25	-11.13	-8.70	-7.53	-6.25	-3.93	-0.33	3.27	5.59	6.87	8.04	10.47
26	-11.63	-9.08	-7.84	-6.49	-4.05	-0.26	3.53	5.97	7.32	8.56	11.11
27	-11.32	-8.80	-7.58	-6.25	-3.84	-0.10	3.64	6.05	7.38	8.60	11.12
28	-9.08	-6.63	-5.48	-4.22	-1.95	1.58	5.10	7.38	8.63	9.78	12.16
29	-11.47	-8.43	-6.96	-5.36	-2.46	2.05	6.56	9.47	11.07	12.54	15.57
30	-11.85	-8.49	-6.85	-5.08	-1.86	3.14	8.14	11.36	13.14	14.77	18.14
31	-10.69	-7.42	-5.89	-4.12	-0.99	3.86	8.71	11.83	13.55	15.14	18.40
32	-11.51	-7.84	-6.07	-4.13	-0.62	4.83	10.27	13.79	15.72	17.50	21.17
33	-12.91	-9.38	-7.68	-5.82	-2.45	2.78	8.01	11.38	13.24	14.94	18.47
34	-16.06	-12.33	-10.53	-8.56	-4.99	0.54	6.07	9.64	11.60	13.41	17.14
35	-21.01	-16.30	-14.02	-11.54	-7.03	-0.04	6.94	11.45	13.93	16.21	20.92
36	-19.66	-15.25	-13.13	-10.81	-6.60	-0.07	6.46	10.67	12.99	15.12	19.52
37	-19.33	-15.06	-12.99	-10.74	-6.66	-0.32	6.01	10.10	12.35	14.42	18.68
38	-20.00	-15.65	-13.54	-11.24	-7.07	-0.61	5.85	10.02	12.32	14.43	18.78
39	-23.23	-18.18	-15.78	-13.09	-8.26	-0.78	6.70	11.53	14.18	16.62	21.66
40	-24.67	-19.24	-16.61	-13.74	-8.55	-0.48	7.58	12.78	15.64	18.27	23.70
41	-27.30	-20.96	-17.88	-14.54	-8.47	-0.94	10.35	16.42	19.76	22.84	29.18
42	-25.41	-19.13	-16.09	-12.78	-6.77	2.55	11.87	17.88	21.19	24.23	30.51
43	-26.07	-19.40	-16.17	-12.66	-6.27	3.63	13.53	19.92	23.44	26.67	33.34
44	-28.18	-20.76	-17.17	-13.26	-6.16	4.85	15.85	22.95	26.86	30.45	37.87
45	-25.76	-18.40	-14.84	-10.96	-3.92	7.00	17.92	24.96	28.84	32.40	39.76
46	-26.41	-18.63	-14.86	-10.76	-3.32	8.23	19.77	27.22	31.32	35.08	42.86
47	-25.86	-18.13	-14.39	-10.32	-2.93	8.53	20.00	27.39	31.46	35.20	42.92
48	-23.49	-16.38	-12.93	-9.18	-2.37	8.20	18.76	25.57	29.32	32.77	39.86
49	-22.01	-15.28	-12.02	-8.48	-2.03	7.96	17.95	24.39	27.93	31.19	37.92
50	-22.60	-15.80	-12.50	-8.91	-2.40	7.70	17.81	24.32	27.91	31.21	38.01
51	-25.39	-17.94	-14.33	-10.40	-3.27	7.78	18.84	25.97	29.89	33.50	40.95
52	-29.52	-21.15	-17.09	-12.68	-4.66	7.76	20.19	28.20	32.61	36.67	45.04
53	-30.51	-21.98	-17.85	-13.35	-5.18	7.49	20.15	28.32	32.82	36.95	45.48
54	-34.97	-25.38	-20.74	-15.69	-6.51	7.71	21.94	31.11	36.17	40.81	50.39
55	-37.51	-27.07	-22.01	-16.51	-6.51	8.98	24.48	34.47	39.98	45.03	55.47
56	-39.01	-28.27	-23.07	-17.41	-7.13	8.80	24.74	35.01	40.67	45.87	56.61
57	-43.13	-31.50	-25.86	-19.73	-8.60	8.67	25.94	37.07	43.20	48.84	60.47
58	-34.66	-24.96	-20.26	-15.14	-5.85	8.55	22.96	32.25	37.37	42.07	51.77
59	-26.53	-18.17	-14.12	-9.72	-1.72	10.69	23.09	31.09	35.50	39.54	47.90
60	-33.47	-23.10	-18.07	-12.60	-2.67	12.73	28.13	38.86	43.53	48.56	58.23
61	-33.18	-22.94	-17.98	-12.58	-2.78	12.42	27.62	37.42	42.82	47.78	58.02
62	-32.60	-22.56	-17.70	-12.41	-2.80	12.10	27.08	36.61	41.90	46.76	56.80
63	-32.31	-22.41	-17.61	-12.39	-2.91	11.79	26.49	35.97	41.19	45.99	55.89
64	-31.72	-22.02	-17.32	-12.21	-2.92	11.48	25.88	35.17	40.28	44.98	54.68
65	-31.43	-21.86	-17.23	-12.19	-3.03	11.17	25.37	34.53	39.57	44.20	53.77
66	-31.15	-21.72	-17.15	-12.18	-3.15	10.85	24.85	33.88	38.85	43.42	52.85
67	-30.56	-21.33	-16.86	-12.00	-3.16	10.54	24.24	33.08	37.94	42.41	51.64
68	-30.27	-21.18	-16.77	-11.98	-3.27	10.23	23.73	32.44	37.23	41.64	50.73
69	-29.69	-20.80	-16.49	-11.80	-3.29	9.91	23.11	31.62	36.31	40.62	49.81
70	-29.40	-20.64	-16.40	-11.78	-3.40	9.60	22.60	30.98	35.60	39.84	48.88

TABLE 11.3. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

MARCH

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.18	-8.58	-7.47	-6.15	-5.76	-4.05	7.65	6.05	7.37	9.59	11.03
1	-16.66	-12.54	-10.54	-8.37	-8.42	1.70	7.82	11.77	17.14	15.94	20.06
2	-16.53	-12.50	-10.55	-8.43	-8.57	1.41	7.19	11.25	17.37	15.32	19.35
3	-18.22	-13.83	-11.70	-9.38	-9.18	1.34	7.86	12.06	14.38	16.51	20.90
4	-20.58	-15.73	-13.33	-10.82	-10.18	1.02	8.22	12.86	15.42	17.77	22.62
5	-22.15	-16.96	-14.45	-11.72	-10.75	0.95	8.65	13.42	16.22	18.66	24.05
6	-24.17	-18.45	-15.68	-12.67	-11.19	1.30	9.79	15.27	19.23	21.05	26.77
7	-26.85	-20.48	-17.39	-14.02	-12.87	1.53	10.99	17.69	20.48	23.54	29.91
8	-28.72	-21.90	-19.60	-15.01	-14.49	1.64	11.76	19.29	21.88	25.13	32.55
9	-34.20	-26.18	-22.29	-18.00	-16.38	1.45	13.44	21.12	25.35	29.24	37.26
10	-38.75	-29.72	-25.35	-20.53	-18.95	1.13	14.85	23.48	28.25	32.62	41.65
11	-44.32	-34.11	-29.17	-23.79	-21.42	1.13	16.29	26.05	31.43	36.37	46.58
12	-42.56	-32.69	-27.93	-22.75	-20.34	1.28	15.84	25.45	30.43	35.19	45.02
13	-36.96	-28.35	-24.18	-19.64	-17.80	1.28	14.16	22.40	28.54	31.11	38.72
14	-29.58	-22.67	-19.33	-15.69	-14.03	1.17	11.42	18.03	21.67	25.01	31.42
15	-25.77	-19.69	-16.74	-13.53	-12.71	1.32	10.35	16.17	19.38	22.33	28.41
16	-22.15	-16.91	-14.37	-11.61	-10.59	1.19	8.97	13.90	16.75	17.23	24.53
17	-19.42	-14.77	-12.52	-10.07	-9.62	1.22	8.18	12.63	15.08	17.33	21.98
18	-16.42	-12.55	-10.68	-8.44	-8.25	0.80	6.54	10.24	12.23	14.15	18.22
19	-13.67	-10.50	-8.96	-7.25	-6.95	0.46	5.17	8.21	9.99	11.42	14.59
20	-12.10	-9.33	-7.99	-6.53	-6.23	0.23	4.34	6.99	8.48	9.74	12.56
21	-11.48	-8.93	-7.69	-6.34	-6.04	0.11	3.68	6.12	7.47	8.71	11.25
22	-11.62	-9.03	-7.77	-6.40	-6.12	0.07	3.78	6.26	7.62	8.89	11.48
23	-11.33	-8.83	-7.62	-6.30	-6.01	0.20	3.51	5.90	7.22	8.43	10.93
24	-11.87	-9.28	-8.02	-6.65	-6.37	0.32	3.53	6.01	7.38	8.24	11.23
25	-11.07	-8.69	-7.43	-6.27	-5.99	0.45	3.08	5.37	6.63	7.75	10.17
26	-10.80	-8.50	-7.24	-6.17	-5.96	0.54	2.88	5.09	6.30	7.42	9.77
27	-11.69	-9.19	-7.98	-6.66	-6.27	0.56	3.15	5.44	6.86	8.07	10.57
28	-7.28	-5.80	-3.90	-2.70	-2.87	2.87	6.25	8.43	9.63	10.73	13.01
29	-7.94	-5.13	-3.97	-2.70	-2.40	3.16	6.73	9.03	10.29	11.46	13.86
30	-8.64	-6.07	-4.82	-3.45	-2.87	2.87	6.71	9.19	10.56	11.81	14.40
31	-10.51	-7.58	-6.15	-4.61	-1.80	2.56	6.92	9.73	11.27	12.70	15.63
32	-13.04	-9.69	-8.07	-6.30	-3.09	1.89	6.87	10.08	11.85	13.47	16.83
33	-14.30	-10.86	-9.20	-7.39	-4.10	0.99	6.09	9.38	11.19	12.85	16.28
34	-16.38	-12.57	-10.73	-8.72	-5.08	0.57	6.22	9.86	11.87	13.71	17.52
35	-17.75	-16.87	-14.50	-11.93	-7.25	0.00	7.25	11.92	14.50	16.86	21.75
36	-21.63	-16.73	-14.36	-11.78	-7.10	0.17	7.43	12.12	14.70	17.07	21.96
37	-20.90	-16.18	-13.89	-11.40	-6.87	0.15	7.16	11.69	14.18	16.47	21.20
38	-23.01	-17.95	-15.50	-12.83	-7.99	0.48	7.04	11.88	14.55	17.00	22.06
39	-23.42	-18.26	-15.76	-13.04	-8.10	0.44	7.22	12.16	14.89	17.39	22.55
40	-24.88	-19.34	-16.65	-13.73	-8.43	0.20	8.02	13.33	16.25	18.93	24.47
41	-28.13	-21.85	-18.81	-15.49	-9.48	0.15	9.18	15.19	18.51	21.55	27.83
42	-26.79	-20.63	-17.65	-14.40	-8.50	0.65	9.80	15.69	18.94	21.93	28.09
43	-24.26	-18.40	-15.56	-12.47	-8.86	1.84	10.54	16.15	19.23	22.07	27.93
44	-21.66	-16.13	-13.45	-10.53	-5.24	2.98	11.19	16.49	19.40	22.09	27.62
45	-19.37	-14.18	-11.66	-8.93	-3.96	3.75	11.46	16.43	19.17	21.68	26.87
46	-18.80	-13.58	-11.05	-8.29	-3.29	4.46	12.22	17.22	19.97	22.50	27.73
47	-17.68	-12.47	-9.94	-7.19	-2.21	5.53	13.26	18.25	21.00	23.52	28.74
48	-16.59	-11.54	-9.09	-6.43	-1.60	5.89	13.39	18.22	20.88	23.33	28.58
49	-18.49	-12.93	-10.23	-7.30	-1.98	6.28	14.54	19.87	22.80	25.49	31.06
50	-17.58	-12.22	-9.63	-6.81	-1.68	6.27	14.21	19.34	22.16	24.75	30.11
51	-18.52	-13.03	-10.38	-7.49	-2.24	5.90	14.04	19.29	22.19	24.84	30.33
52	-20.41	-14.59	-11.77	-8.71	-3.14	5.49	14.13	19.70	22.76	25.58	31.40
53	-20.75	-15.13	-12.41	-9.45	-4.07	4.27	12.61	17.99	20.95	23.67	29.29
54	-21.67	-15.93	-13.15	-10.13	-4.63	3.89	12.41	17.90	20.93	23.70	29.44
55	-22.20	-16.35	-13.52	-10.44	-4.84	3.84	12.53	18.13	21.21	24.04	29.89
56	-17.08	-12.12	-9.76	-7.20	-2.53	4.70	11.93	16.59	19.16	21.52	26.39
57	-17.18	-11.99	-9.48	-6.74	-1.77	5.94	13.64	18.61	21.35	23.86	29.05
58	-24.83	-17.99	-14.67	-11.07	-4.52	5.64	15.80	22.35	25.95	29.27	36.11
59	-23.47	-16.18	-12.65	-8.81	-1.83	8.99	19.81	26.78	30.63	34.16	41.44
60	-21.76	-13.79	-9.93	-5.72	1.91	13.74	25.57	33.20	37.41	41.27	49.24
61	-21.78	-13.82	-10.00	-5.85	1.70	13.40	25.10	32.65	36.80	40.62	48.50
62	-21.75	-13.94	-10.15	-6.03	1.45	13.05	24.65	32.13	36.25	40.04	47.85
63	-22.89	-14.28	-10.49	-6.37	1.11	12.71	24.31	31.79	35.91	39.70	47.51
64	-22.14	-14.39	-10.64	-6.56	0.86	12.36	23.86	31.28	35.36	39.11	46.86
65	-22.18	-14.50	-10.78	-6.73	0.62	12.02	23.42	30.77	34.82	38.54	46.22
66	-22.22	-14.61	-10.92	-6.91	0.38	11.68	22.98	30.27	34.28	37.97	45.58
67	-22.27	-14.72	-11.07	-7.09	0.13	11.33	22.53	29.75	33.73	37.38	44.93
68	-22.61	-15.06	-11.41	-7.43	0.21	10.99	22.19	29.41	33.39	37.04	44.59
69	-22.66	-15.18	-11.56	-7.62	0.46	10.64	21.74	28.90	32.84	36.46	43.94
70	-22.78	-15.29	-11.70	-7.79	0.70	10.30	21.30	28.39	32.30	35.89	43.30

TABLE 11.4. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

APRIL

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.32	-7.12	-6.06	-4.90	-2.80	4.45	3.72	5.82	6.98	8.04	10.24
1	-15.00	-11.36	-9.60	-7.68	-4.20	1.20	6.60	10.08	12.00	13.76	17.40
2	-15.53	-12.00	-10.24	-8.43	-5.05	1.19	5.43	8.81	10.67	12.38	15.91
3	-16.73	-14.68	-12.72	-10.59	-6.71	1.70	5.31	9.19	11.32	13.28	17.33
4	-20.80	-16.36	-14.24	-11.91	-7.68	-1.12	5.44	9.67	12.00	14.14	18.56
5	-21.49	-16.96	-14.77	-12.38	-8.05	-1.33	5.39	9.72	12.11	14.30	18.83
6	-23.59	-18.67	-16.29	-13.63	-8.97	-1.66	5.65	10.36	12.96	15.35	20.27
7	-26.22	-20.80	-18.17	-15.31	-10.12	-2.07	5.98	11.17	14.03	16.66	22.08
8	-28.89	-22.97	-20.10	-16.98	-11.31	-2.52	6.27	11.94	15.06	17.93	23.95
9	-33.01	-26.73	-22.95	-19.38	-12.89	-2.83	7.23	13.72	17.29	20.57	27.35
10	-38.20	-30.38	-26.59	-22.47	-14.98	-3.37	8.24	15.73	19.85	23.64	31.46
11	-43.33	-34.51	-30.24	-25.59	-17.15	-4.06	9.03	17.47	22.12	26.39	35.21
12	-46.99	-37.48	-32.88	-27.87	-19.77	-4.66	9.45	18.55	23.56	28.16	37.67
13	-49.32	-39.43	-34.13	-29.45	-21.94	-4.75	8.44	16.95	21.63	25.93	34.82
14	-38.50	-30.82	-27.10	-23.05	-15.70	-4.30	7.10	14.45	18.50	22.22	29.93
15	-30.81	-24.65	-21.67	-18.42	-12.53	-3.39	5.75	11.64	14.89	17.87	24.03
16	-26.94	-21.56	-18.95	-16.11	-10.96	-2.97	5.02	10.17	13.01	15.62	21.00
17	-22.79	-18.20	-15.98	-13.56	-9.17	-2.36	4.45	8.84	11.26	13.48	18.07
18	-17.97	-14.37	-12.63	-10.73	-7.29	-1.95	3.39	6.83	8.73	10.47	14.07
19	-14.43	-11.47	-10.04	-8.48	-5.65	-1.26	3.13	5.96	7.52	8.95	11.91
20	-13.01	-10.28	-8.96	-7.52	-4.91	-0.86	3.19	5.80	7.24	8.56	11.29
21	-11.10	-8.83	-7.73	-6.53	-4.36	-0.69	2.38	4.55	5.75	6.85	9.12
22	-10.23	-8.10	-7.07	-5.95	-3.91	-0.75	2.41	4.45	5.57	6.60	8.73
23	-9.93	-7.87	-6.87	-5.78	-3.81	-0.75	2.31	4.28	5.37	6.37	8.43
24	-10.17	-8.06	-7.04	-5.73	-3.91	-0.78	2.35	4.37	5.48	6.50	8.61
25	-10.24	-8.13	-7.11	-5.80	-3.98	-0.78	2.28	4.30	5.41	6.43	8.54
26	-9.80	-7.77	-6.78	-5.71	-3.76	-0.74	2.28	4.23	5.30	6.29	8.32
27	-10.44	-8.27	-7.22	-6.08	-4.00	-0.78	2.44	4.52	5.66	6.71	8.88
28	-8.39	-6.22	-5.17	-4.03	-1.95	1.27	4.49	6.57	7.71	8.76	10.93
29	-8.09	-5.95	-4.91	-3.79	-1.74	1.43	4.61	6.65	7.78	8.82	10.96
30	-9.57	-7.10	-5.90	-4.60	-2.24	1.43	5.10	7.46	8.76	9.96	12.43
31	-9.97	-7.41	-6.17	-4.82	-2.37	1.43	5.23	7.67	9.02	10.25	12.82
32	-11.77	-8.97	-7.62	-6.14	-3.46	1.70	4.86	7.54	9.02	10.37	13.17
33	-11.52	-8.30	-7.59	-6.17	-3.59	1.41	4.41	6.99	8.41	9.72	12.41
34	-15.46	-12.14	-10.50	-8.78	-5.59	-0.66	4.28	7.46	9.22	10.83	14.15
35	-16.79	-13.23	-11.51	-9.64	-6.24	-0.96	4.31	7.72	9.59	11.31	14.86
36	-19.07	-14.99	-13.01	-10.86	-6.95	-0.89	5.18	9.09	11.24	13.22	17.30
37	-13.73	-15.60	-13.59	-11.41	-7.45	-1.31	4.82	8.78	10.96	12.97	17.10
38	-21.36	-16.90	-14.73	-12.38	-8.11	-1.48	5.15	9.42	11.78	13.94	18.40
39	-20.65	-16.11	-13.91	-11.52	-7.17	-0.94	6.30	10.65	13.09	15.29	19.78
40	-19.91	-15.57	-13.47	-11.18	-7.03	-0.58	5.86	10.01	12.30	14.41	18.75
41	-17.59	-13.56	-11.61	-9.49	-5.64	0.34	6.31	10.17	12.29	14.24	18.27
42	-17.43	-13.44	-11.50	-9.39	-5.57	0.37	6.30	10.13	12.24	14.17	18.17
43	-17.31	-13.09	-11.05	-8.83	-4.79	1.47	7.73	11.77	13.99	16.03	20.25
44	-18.65	-13.90	-11.60	-9.09	-4.55	2.51	9.56	14.11	16.61	18.91	23.66
45	-16.35	-12.34	-10.11	-7.68	-3.27	3.57	10.42	14.83	17.26	19.49	24.10
46	-17.49	-12.49	-10.07	-7.44	-2.66	4.76	12.17	16.96	19.59	22.01	27.01
47	-19.02	-13.80	-11.28	-8.53	-3.53	4.21	11.95	16.94	19.69	22.21	27.43
48	-18.82	-13.80	-11.37	-8.73	-3.93	3.51	10.96	15.76	18.40	20.83	25.85
49	-18.52	-13.68	-11.34	-8.79	-4.16	3.02	10.19	14.82	17.37	19.71	24.55
50	-16.46	-11.97	-9.80	-7.43	-3.14	3.52	10.18	14.48	16.84	19.02	23.50
51	-19.59	-10.39	-8.36	-6.16	-2.14	4.08	10.30	14.31	16.52	18.55	22.79
52	-15.22	-10.88	-8.78	-6.49	-2.33	4.12	10.56	14.72	17.01	19.11	23.46
53	-15.32	-11.01	-8.92	-6.65	-2.52	3.88	10.28	14.41	16.68	18.77	23.08
54	-14.23	-10.08	-8.07	-5.88	-1.91	4.25	10.42	14.39	16.58	18.59	22.74
55	-15.68	-11.24	-9.09	-6.74	-2.49	4.10	10.69	14.94	17.28	19.43	23.88
56	-16.97	-12.23	-9.94	-7.45	-2.92	4.11	11.13	15.66	18.16	20.45	25.18
57	-19.39	-14.12	-11.61	-8.88	-3.92	3.78	11.47	16.43	19.16	21.67	26.85
58	-24.00	-17.84	-14.85	-11.62	-5.73	3.40	12.54	18.43	21.67	24.65	30.80
59	-20.12	-14.63	-11.97	-9.07	-3.81	4.34	12.49	17.75	20.65	23.31	28.80
60	-23.82	-17.42	-14.32	-10.94	-4.82	4.68	14.18	20.30	23.68	26.77	33.17
61	-23.44	-17.17	-14.14	-10.84	-4.84	4.46	13.76	19.76	23.06	26.09	32.36
62	-22.76	-16.70	-13.76	-10.56	-4.76	4.24	13.24	19.04	22.24	25.18	31.24
63	-22.37	-16.44	-13.57	-10.45	-4.77	4.03	12.83	18.51	21.53	24.50	30.43
64	-21.69	-15.96	-13.19	-10.17	-4.69	3.81	12.31	17.79	20.81	23.58	29.31
65	-21.31	-15.72	-13.01	-10.06	-4.71	3.59	11.89	17.24	20.19	22.90	28.99
66	-20.93	-15.47	-12.83	-9.95	-4.73	3.37	11.47	16.69	19.57	22.21	27.67
67	-20.25	-15.00	-12.45	-9.68	-4.65	3.15	10.95	15.98	18.75	21.30	26.55
68	-19.86	-14.74	-12.26	-9.56	-4.66	2.94	10.54	15.44	18.14	20.62	25.74
69	-19.18	-14.26	-11.88	-9.23	-4.58	2.72	10.02	14.73	17.32	19.70	24.62
70	-18.80	-14.02	-11.70	-9.18	-4.60	2.50	9.68	14.18	16.70	19.02	23.80

TABLE 11.5. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

MAY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.16	-5.42	-4.57	-3.65	-2.98	-2.61	3.20	4.27	5.79	6.64	8.38
1	-11.88	-9.01	-7.67	-6.11	-5.36	-4.90	5.16	7.21	9.42	10.31	13.64
2	-13.95	-10.98	-9.40	-7.78	-6.85	-6.30	4.25	7.18	9.20	10.28	13.35
3	-15.16	-11.86	-10.26	-8.52	-7.56	-6.96	4.44	7.60	9.34	10.34	14.24
4	-16.90	-13.22	-11.44	-9.50	-8.58	-7.92	4.94	8.46	10.40	11.18	15.86
5	-18.33	-14.35	-12.44	-10.35	-9.55	-8.85	5.23	9.03	11.12	11.90	17.01
6	-20.89	-16.38	-14.20	-11.20	-10.51	-9.82	5.97	10.18	12.56	14.74	19.25
7	-23.32	-18.27	-15.32	-13.15	-12.32	-11.62	6.68	11.52	14.13	16.07	21.69
8	-26.33	-20.56	-17.76	-14.72	-13.90	-13.20	7.95	13.48	16.52	18.32	25.09
9	-30.89	-24.13	-20.86	-17.30	-16.33	-15.63	9.23	15.70	19.26	22.57	29.29
10	-35.45	-27.70	-23.95	-19.87	-18.75	-18.05	10.55	17.97	22.05	25.80	33.55
11	-40.46	-31.55	-27.49	-22.75	-21.53	-20.83	11.32	20.25	24.33	28.15	37.36
12	-44.47	-34.86	-30.20	-25.13	-23.93	-23.23	12.61	21.81	26.89	31.54	41.15
13	-44.48	-35.43	-30.86	-25.98	-24.84	-24.14	11.20	20.24	25.22	29.77	39.24
14	-35.57	-31.39	-27.43	-23.12	-21.99	-21.29	9.99	18.82	21.13	25.06	33.27
15	-32.56	-26.05	-22.87	-19.46	-18.22	-17.52	8.12	12.36	15.73	18.75	25.46
16	-29.18	-21.04	-18.61	-15.92	-14.68	-13.98	4.10	8.98	11.67	14.14	19.24
17	-21.22	-17.15	-15.13	-13.04	-11.84	-11.14	2.94	6.84	8.93	10.45	15.02
18	-16.66	-13.44	-11.84	-10.26	-9.02	-8.32	2.22	5.26	6.94	8.46	11.66
19	-12.67	-10.18	-8.78	-7.38	-6.27	-5.57	2.09	4.47	5.79	6.93	9.47
20	-10.34	-8.30	-7.31	-6.23	-5.28	-4.58	1.78	3.72	4.81	5.66	7.84
21	-8.78	-6.97	-6.10	-5.15	-4.32	-3.62	1.94	3.67	4.62	5.43	7.30
22	-9.08	-7.19	-6.28	-5.40	-4.61	-3.91	2.12	3.93	4.82	5.63	7.72
23	-8.73	-6.88	-6.08	-5.20	-4.41	-3.71	2.27	4.04	5.02	5.83	7.77
24	-8.97	-7.06	-6.13	-5.12	-4.25	-3.55	2.35	4.22	5.23	6.10	8.07
25	-9.43	-7.50	-6.53	-5.48	-4.57	-3.87	2.35	4.26	5.31	6.23	8.27
26	-9.64	-7.61	-6.62	-5.55	-4.61	-3.91	2.44	4.39	5.46	6.45	8.48
27	-9.82	-7.76	-6.76	-5.67	-4.70	-3.96	2.42	4.34	5.43	6.48	8.54
28	-9.96	-7.86	-6.85	-5.73	-4.72	-3.96	2.42	4.34	5.43	6.48	8.54
29	-9.06	-7.06	-6.08	-5.13	-4.25	-3.55	2.35	4.26	5.31	6.23	8.27
30	-9.99	-7.56	-6.58	-5.50	-4.57	-3.87	2.35	4.26	5.31	6.23	8.27
31	-10.83	-8.28	-7.05	-5.71	-4.72	-3.96	2.42	4.34	5.43	6.48	8.54
32	-11.16	-8.45	-7.14	-5.71	-4.72	-3.96	2.42	4.34	5.43	6.48	8.54
33	-13.35	-10.25	-8.75	-7.12	-5.84	-5.14	2.92	4.95	7.55	8.98	10.29
34	-13.15	-10.23	-8.76	-7.20	-5.87	-5.17	2.92	4.95	7.55	8.98	10.29
35	-14.80	-11.64	-10.06	-8.35	-6.83	-6.13	3.39	5.64	8.64	10.13	11.66
36	-14.84	-11.69	-10.16	-8.50	-6.98	-6.28	3.39	5.64	8.64	10.13	11.66
37	-14.84	-11.69	-10.16	-8.50	-6.98	-6.28	3.39	5.64	8.64	10.13	11.66
38	-14.84	-11.69	-10.16	-8.50	-6.98	-6.28	3.39	5.64	8.64	10.13	11.66
39	-14.84	-11.69	-10.16	-8.50	-6.98	-6.28	3.39	5.64	8.64	10.13	11.66
40	-14.84	-11.69	-10.16	-8.50	-6.98	-6.28	3.39	5.64	8.64	10.13	11.66
41	-15.55	-12.09	-10.41	-8.58	-7.06	-6.36	3.71	6.04	9.04	10.57	12.10
42	-15.55	-12.09	-10.41	-8.58	-7.06	-6.36	3.71	6.04	9.04	10.57	12.10
43	-14.83	-11.10	-9.29	-7.33	-5.84	-5.14	3.39	5.64	8.64	10.13	11.66
44	-13.67	-10.28	-8.54	-6.65	-5.21	-4.51	3.12	5.12	7.72	9.24	10.77
45	-15.14	-11.19	-9.28	-7.20	-5.84	-5.14	3.39	5.64	8.64	10.13	11.66
46	-15.95	-11.77	-9.75	-7.54	-6.06	-5.36	3.66	5.87	8.87	10.40	11.93
47	-15.62	-11.29	-9.20	-7.12	-5.67	-4.97	3.39	5.64	8.64	10.13	11.66
48	-17.01	-12.46	-10.25	-8.05	-6.57	-5.87	3.71	6.04	9.04	10.57	12.10
49	-18.10	-13.35	-11.04	-8.54	-6.98	-6.28	3.39	5.64	8.64	10.13	11.66
50	-16.62	-12.10	-9.82	-7.33	-5.84	-5.14	3.39	5.64	8.64	10.13	11.66
51	-16.69	-11.90	-9.58	-7.05	-5.56	-4.86	3.39	5.64	8.64	10.13	11.66
52	-18.08	-13.03	-10.58	-8.02	-6.46	-5.76	3.71	6.04	9.04	10.57	12.10
53	-19.13	-13.81	-11.23	-8.42	-6.86	-6.16	4.04	6.36	9.36	10.89	12.42
54	-18.55	-13.26	-10.71	-8.24	-6.68	-5.98	3.71	6.04	9.04	10.57	12.10
55	-18.79	-13.55	-11.00	-8.24	-6.68	-5.98	3.71	6.04	9.04	10.57	12.10
56	-21.29	-15.54	-12.76	-9.73	-8.23	-7.53	4.30	7.03	10.03	11.56	13.09
57	-26.84	-19.85	-16.42	-12.69	-10.90	-10.20	5.62	9.14	12.66	14.19	15.72
58	-30.70	-23.01	-19.28	-15.23	-13.44	-12.74	6.95	10.47	13.99	15.52	17.05
59	-30.63	-23.18	-19.57	-15.55	-13.76	-13.06	6.95	10.47	13.99	15.52	17.05
60	-38.44	-27.71	-23.49	-18.89	-16.10	-15.40	8.23	11.75	15.27	16.80	18.33
61	-34.23	-26.01	-22.03	-17.70	-15.01	-14.31	7.53	11.05	14.57	16.10	17.63
62	-31.88	-24.20	-20.48	-16.43	-13.74	-13.04	7.23	10.75	14.27	15.80	17.33
63	-29.84	-22.63	-19.14	-15.34	-12.65	-11.95	6.95	10.47	13.99	15.52	17.05
64	-27.49	-20.82	-17.53	-14.07	-11.38	-10.68	6.68	10.20	13.72	15.25	16.78
65	-25.44	-19.24	-16.24	-12.97	-10.28	-9.58	6.41	9.93	13.44	14.97	16.50
66	-23.09	-17.43	-14.63	-11.71	-9.02	-8.32	6.14	9.66	13.17	14.70	16.23
67	-20.74	-15.62	-13.14	-10.44	-7.75	-7.05	5.87	9.39	12.90	14.43	15.96
68	-18.70	-14.05	-11.80	-9.35	-6.66	-5.96	5.60	9.12	12.63	14.16	15.69
69	-16.65	-12.47	-10.45	-8.25	-5.56	-4.86	5.33	8.85	12.36	13.89	15.42
70	-14.30	-10.66	-8.90	-6.98	-4.50	-3.80	5.06	8.58	12.09	13.62	15.15

TABLE 11.6. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

JUNE

Cumulative Percentage Probability										
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.865
0	-6.42	-4.76	-3.95	-3.07	-1.48	.99	3.46	5.05	5.93	6.74
1	-9.66	-7.03	-5.93	-4.47	-2.00	1.83	5.66	9.13	9.49	10.74
2	-10.68	-8.02	-6.72	-5.22	-2.76	1.17	5.12	7.77	9.07	10.36
3	-11.17	-8.45	-7.17	-5.70	-3.09	.95	4.99	7.60	9.03	10.35
4	-11.84	-8.91	-7.64	-6.15	-3.44	.76	4.96	7.67	9.15	10.53
5	-12.51	-9.51	-8.20	-6.67	-3.99	.42	4.73	7.51	9.04	10.45
6	-13.67	-10.60	-9.12	-7.50	-4.57	-.02	4.53	7.46	9.08	10.50
7	-15.04	-11.70	-10.09	-8.32	-5.12	-.16	4.80	8.00	9.76	11.38
8	-17.14	-13.75	-11.51	-9.51	-5.88	-.25	5.38	9.01	11.01	12.95
9	-20.23	-15.80	-13.63	-11.27	-6.97	-.31	6.35	10.65	13.01	15.13
10	-24.41	-19.04	-16.44	-13.61	-8.47	-.50	7.47	12.61	15.44	18.04
11	-28.69	-22.44	-19.42	-16.13	-10.15	-.88	8.39	14.37	17.66	20.68
12	-34.18	-26.90	-23.38	-19.54	-12.58	-1.78	9.02	15.98	19.82	23.34
13	-36.30	-28.93	-25.21	-21.27	-14.12	-3.03	9.06	15.21	19.15	22.77
14	-33.04	-26.53	-23.47	-20.07	-13.90	-4.32	5.24	11.41	14.81	17.92
15	-26.93	-22.04	-19.67	-17.00	-12.41	-5.15	2.11	6.79	9.37	11.74
16	-20.30	-16.71	-14.97	-13.08	-9.64	-4.31	1.02	4.46	6.35	8.05
17	-15.39	-12.63	-11.20	-9.33	-7.10	-3.09	1.01	3.65	5.11	6.45
18	-11.75	-9.60	-8.50	-7.42	-5.37	-2.18	1.01	3.07	4.20	5.24
19	-9.69	-7.80	-6.83	-5.91	-4.07	-1.26	1.55	3.36	4.26	5.29
20	-8.90	-7.12	-6.20	-5.32	-3.62	-.98	1.66	3.36	4.30	5.16
21	-8.50	-6.73	-5.87	-4.94	-3.24	-.61	2.02	3.72	4.65	5.51
22	-9.59	-7.54	-6.58	-5.46	-3.49	-.44	2.61	4.58	5.66	6.66
23	-9.34	-7.33	-6.36	-5.30	-3.38	-.40	2.59	4.56	5.66	6.53
24	-8.55	-6.72	-5.84	-4.86	-3.13	-.42	2.29	4.04	5.00	5.88
25	-8.68	-6.87	-5.99	-5.03	-3.30	-.61	2.03	3.81	4.77	5.65
26	-9.38	-7.33	-6.44	-5.45	-3.58	-.68	2.22	4.09	5.12	6.07
27	-9.47	-7.53	-6.59	-5.57	-3.71	-.83	2.05	3.91	4.93	5.87
28	-7.97	-6.12	-5.22	-4.25	-2.88	-.26	3.00	4.77	5.75	6.84
29	-8.45	-6.50	-5.55	-4.52	-2.65	-.25	3.14	5.01	6.04	6.96
30	-8.22	-6.21	-5.23	-4.17	-2.24	-.75	3.74	5.67	6.73	7.71
31	-7.60	-5.64	-4.69	-3.65	-1.77	1.14	4.06	5.94	6.97	7.93
32	-10.06	-7.54	-6.32	-4.99	-2.58	1.15	4.89	7.30	8.62	9.84
33	-8.68	-6.55	-5.51	-4.39	-2.35	.81	3.97	6.01	7.13	8.16
34	-9.86	-7.55	-6.42	-5.21	-2.99	.44	3.88	6.09	7.31	8.43
35	-10.79	-8.35	-7.17	-5.89	-3.55	.07	3.69	6.02	7.31	8.49
36	-12.44	-9.65	-8.28	-6.79	-4.08	-.13	4.33	7.04	8.54	9.91
37	-12.75	-9.78	-8.34	-6.78	-3.94	-.47	4.87	7.72	9.28	10.72
38	-13.37	-10.22	-8.70	-7.04	-4.03	.64	5.31	8.33	9.99	11.51
39	-13.77	-10.55	-8.98	-7.29	-4.20	.58	5.37	8.45	10.15	11.71
40	-14.48	-11.23	-9.66	-7.95	-4.85	-.03	4.78	7.89	9.60	11.17
41	-15.97	-12.47	-10.78	-8.93	-5.59	-.39	4.80	8.15	10.00	11.69
42	-13.92	-10.81	-9.30	-7.66	-4.69	-.07	4.54	7.52	9.16	10.67
43	-13.98	-10.71	-9.18	-7.41	-4.28	.57	5.42	8.54	10.26	11.85
44	-13.32	-9.86	-8.18	-6.36	-3.05	2.09	7.23	10.54	12.36	14.04
45	-14.45	-10.53	-8.64	-6.57	-2.83	2.98	8.80	12.54	14.61	16.50
46	-15.20	-10.93	-8.86	-6.61	-2.52	3.82	10.16	14.25	16.50	18.57
47	-14.93	-10.51	-8.37	-6.04	-1.81	4.75	11.31	15.54	17.86	20.00
48	-15.49	-10.72	-8.41	-5.89	-1.33	5.75	12.83	17.39	19.91	22.22
49	-16.47	-11.50	-8.79	-6.06	-1.11	6.58	14.26	19.22	21.94	24.45
50	-15.90	-10.74	-8.23	-5.51	-.56	7.11	14.78	19.73	22.45	24.95
51	-15.41	-10.33	-7.86	-5.18	-.31	7.24	14.79	19.66	22.34	24.80
52	-15.14	-10.24	-7.87	-5.29	-.60	6.67	13.94	18.63	21.21	23.58
53	-16.23	-11.20	-8.77	-6.12	-1.31	6.15	13.61	18.42	21.07	23.50
54	-18.75	-13.35	-10.73	-7.89	-2.72	5.30	13.31	18.48	21.32	23.94
55	-21.16	-15.36	-12.56	-9.50	-3.95	4.66	13.26	18.81	21.87	24.68
56	-23.10	-16.99	-14.03	-10.81	-4.95	4.12	13.20	19.05	22.27	25.23
57	-24.28	-17.94	-14.87	-11.52	-5.45	3.57	13.39	19.46	22.80	25.84
58	-26.34	-19.80	-16.63	-13.18	-6.92	2.78	12.49	18.75	22.20	25.36
59	-27.09	-20.73	-17.65	-14.29	-8.20	1.25	10.70	16.79	20.14	23.23
60	-34.66	-26.74	-22.90	-18.72	-11.13	.63	12.40	19.99	24.17	28.01
61	-32.37	-24.96	-21.37	-17.46	-10.37	.63	11.63	18.72	22.63	26.22
62	-30.29	-23.35	-19.99	-16.33	-9.69	.61	10.91	17.55	21.21	24.97
63	-27.90	-21.58	-18.40	-15.03	-8.90	.60	10.10	16.23	19.60	22.70
64	-25.82	-19.89	-17.02	-13.90	-8.22	.58	9.38	15.06	18.18	21.05
65	-23.73	-18.27	-15.63	-12.75	-7.53	.57	8.67	13.89	16.77	19.41
66	-21.64	-16.65	-14.24	-11.61	-6.84	.56	7.96	12.73	15.36	17.77
67	-19.56	-15.05	-12.86	-10.48	-6.16	.54	7.24	11.56	13.94	16.13
68	-17.17	-13.20	-11.27	-9.17	-5.37	.53	6.43	10.23	12.33	14.26
69	-15.09	-11.59	-9.89	-8.04	-4.69	.51	5.71	9.06	10.91	12.61
70	-13.00	-9.97	-8.50	-6.90	-4.00	.50	5.00	7.90	9.50	10.97

TABLE 11.7. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

JULY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.15	-2.86	-2.24	-1.56	-1.33	1.58	3.49	4.72	5.40	6.02	7.31
1	-7.24	-4.99	-3.89	-2.59	-1.52	2.34	6.20	8.37	9.56	10.66	12.92
2	-6.31	-6.01	-4.89	-2.68	-1.47	1.95	5.37	7.58	8.79	9.91	12.21
3	-5.63	-5.32	-4.20	-2.99	-1.77	1.66	5.03	7.30	8.52	9.64	11.95
4	-5.97	-7.18	-5.97	-4.66	-2.27	1.43	5.13	7.52	8.63	10.04	12.57
5	-10.47	-7.30	-6.05	-5.23	-2.37	.99	4.31	7.27	8.07	9.39	12.45
6	-11.81	-9.02	-7.67	-6.20	-3.53	.61	4.75	7.42	8.89	10.24	13.03
7	-12.30	-3.88	-3.46	-0.92	-4.12	.22	4.56	7.36	8.30	10.32	13.34
8	-14.37	-11.20	-9.66	-7.99	-4.95	-.24	4.47	7.51	9.19	10.72	13.89
9	-17.16	-13.50	-11.72	-9.73	-6.28	-.94	4.60	9.11	10.04	11.32	15.44
10	-20.03	-15.87	-13.87	-11.66	-7.67	-1.49	4.69	8.68	10.67	12.45	17.05
11	-22.98	-18.24	-16.00	-13.56	-9.12	-2.74	4.64	9.03	11.52	13.75	18.40
12	-25.65	-20.60	-18.16	-15.51	-10.67	-3.12	4.31	9.14	11.30	14.24	19.29
13	-28.45	-23.07	-20.40	-17.62	-12.47	-4.43	3.51	9.66	11.00	14.11	19.49
14	-26.85	-21.95	-19.57	-16.98	-12.22	-5.01	2.27	6.61	9.55	11.23	16.83
15	-21.57	-17.68	-15.79	-13.74	-10.01	-4.23	1.55	5.23	7.33	9.22	13.11
16	-15.76	-12.88	-11.40	-9.97	-7.22	-2.95	1.32	4.07	5.59	6.96	9.85
17	-12.40	-10.08	-8.95	-7.74	-5.52	-2.03	1.36	3.53	4.90	5.92	8.24
18	-9.86	-7.91	-6.97	-5.94	-4.08	-1.19	1.70	3.66	4.59	5.52	7.48
19	-9.03	-7.20	-6.32	-5.36	-3.61	-.90	1.81	3.56	4.52	5.40	7.27
20	-8.05	-6.43	-5.64	-4.78	-2.23	-.82	1.59	3.14	4.00	4.79	6.41
21	-8.85	-6.97	-6.06	-5.07	-2.27	-.88	2.31	3.11	3.92	4.61	6.41
22	-9.89	-7.73	-6.62	-5.55	-3.43	-.29	2.91	4.97	6.11	7.17	9.21
23	-9.77	-7.53	-6.60	-5.47	-3.47	-.26	2.91	4.95	6.08	7.11	9.25
24	-8.83	-6.92	-5.98	-4.98	-2.15	-.31	2.53	4.36	5.37	6.30	8.21
25	-8.89	-7.02	-6.12	-5.14	-2.35	-.53	2.19	3.93	4.96	5.92	7.77
26	-9.54	-7.55	-6.56	-5.52	-2.02	-.51	2.16	4.21	5.22	6.23	8.22
27	-10.32	-8.18	-7.15	-6.02	-3.98	-.31	2.16	4.40	5.43	6.45	8.72
28	-10.61	-8.55	-7.55	-6.46	-4.48	-1.42	1.64	3.61	4.70	5.70	7.76
29	-9.86	-7.12	-6.18	-5.16	-3.31	-.43	2.45	4.30	5.32	6.26	8.20
30	-9.92	-7.64	-6.54	-5.34	-3.16	-.21	3.59	5.77	6.97	8.07	10.34
31	-9.63	-7.32	-6.21	-5.09	-2.78	.65	4.07	6.28	7.50	8.62	10.92
32	-9.31	-6.93	-5.78	-4.92	-2.25	1.28	4.81	7.09	8.34	9.50	11.87
33	-9.89	-7.38	-6.16	-4.84	-2.44	1.28	5.01	7.41	8.73	9.95	12.46
34	-10.83	-8.18	-6.90	-5.51	-2.98	.98	4.87	7.40	8.79	10.07	12.71
35	-11.53	-8.71	-7.35	-5.86	-3.16	1.03	5.22	7.92	9.41	10.77	13.60
36	-11.78	-8.94	-7.57	-6.08	-3.36	.84	5.05	7.77	9.26	10.63	13.47
37	-14.43	-11.17	-9.59	-7.87	-4.76	.08	4.91	8.03	9.75	11.33	14.58
38	-14.62	-11.24	-9.60	-7.82	-4.58	.69	5.47	8.71	10.50	12.13	15.52
39	-15.69	-12.01	-10.23	-8.29	-4.77	.65	6.15	9.67	11.61	13.39	17.07
40	-15.87	-12.27	-10.53	-8.64	-5.19	.14	5.46	8.92	10.82	12.56	16.16
41	-17.51	-13.73	-11.84	-9.79	-6.07	-.30	5.46	9.18	11.23	13.12	17.00
42	-15.81	-12.34	-10.66	-8.84	-5.52	-.37	4.77	8.09	9.92	11.60	15.06
43	-16.76	-13.07	-11.28	-9.33	-5.80	-.32	5.16	8.69	10.64	12.42	16.12
44	-17.72	-13.58	-11.58	-9.40	-5.44	.70	6.84	10.80	12.98	14.98	19.12
45	-18.18	-13.57	-11.33	-9.00	-4.49	2.36	9.21	13.62	16.06	18.29	22.90
46	-17.63	-12.85	-10.54	-8.02	-3.44	3.65	10.75	15.33	17.84	20.16	24.94
47	-15.53	-11.03	-8.86	-6.49	-2.18	4.49	11.16	15.46	17.83	20.01	24.50
48	-16.67	-11.73	-9.33	-6.73	-2.00	5.33	12.67	17.40	20.00	22.40	27.34
49	-17.27	-12.02	-9.47	-6.70	-1.67	6.13	13.93	18.96	21.73	24.27	29.53
50	-17.36	-11.99	-9.38	-6.55	-1.40	6.57	14.55	19.70	22.53	25.13	30.51
51	-16.91	-11.70	-9.18	-6.43	-1.45	6.24	14.01	19.00	21.74	24.26	29.47
52	-18.75	-13.21	-10.52	-7.60	-2.29	5.94	14.16	19.47	22.39	25.08	30.62
53	-21.82	-15.58	-12.55	-9.26	-3.28	5.99	15.27	21.25	24.54	27.56	33.41
54	-23.61	-17.05	-13.87	-10.41	-4.13	5.60	15.34	21.62	25.08	28.26	34.82
55	-26.10	-19.94	-15.47	-11.69	-4.83	5.81	16.45	23.31	27.08	30.55	37.72
56	-29.63	-21.70	-17.86	-13.68	-6.09	5.68	17.45	25.04	29.22	33.06	40.99
57	-29.55	-21.73	-17.94	-13.81	-6.32	5.29	16.90	24.39	28.52	32.31	40.13
58	-26.58	-19.78	-16.48	-12.89	-6.38	3.73	13.83	20.35	23.93	27.23	34.04
59	-30.05	-22.54	-18.91	-14.95	-7.77	3.37	14.52	21.70	25.66	29.29	36.80
60	-34.53	-26.09	-22.00	-17.55	-9.48	3.05	15.57	23.65	28.10	32.18	40.62
61	-32.73	-24.71	-20.83	-16.60	-8.93	2.97	14.87	22.54	26.77	30.65	38.67
62	-31.02	-23.41	-19.72	-15.71	-8.42	2.88	14.18	21.47	25.48	29.17	36.78
63	-29.30	-22.09	-18.60	-14.80	-7.90	2.80	13.50	20.40	24.20	27.69	34.90
64	-27.59	-20.79	-17.49	-13.90	-7.39	2.71	12.81	19.32	22.91	26.21	33.01
65	-26.17	-19.70	-16.57	-13.16	-6.97	2.63	12.23	18.42	21.83	24.96	31.43
66	-24.46	-18.40	-15.46	-12.26	-6.46	2.54	11.54	17.34	20.54	23.48	29.54
67	-22.74	-17.08	-14.34	-11.36	-5.94	2.46	10.86	16.28	19.26	22.00	27.66
68	-21.33	-16.01	-13.43	-10.62	-5.53	2.37	10.27	15.36	18.17	20.75	26.07
69	-19.31	-14.46	-12.11	-9.55	-4.91	2.29	9.49	14.13	16.69	19.04	23.89
70	-17.60	-13.15	-11.00	-8.66	-4.40	2.20	8.80	13.06	15.40	17.55	22.00

TABLE 11.8. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

AUGUST

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-5.43	-4.06	-3.40	-2.68	-1.37	.66	2.69	4.00	4.72	5.38	6.75
1	-8.49	-6.16	-5.03	-3.80	-1.57	1.89	5.35	7.58	8.81	9.94	12.27
2	-9.00	-6.58	-5.55	-4.32	-2.10	1.35	4.80	7.02	8.25	9.39	11.70
3	-9.37	-6.99	-5.84	-4.59	-2.31	1.22	4.75	7.03	8.28	9.43	11.81
4	-9.69	-7.22	-6.02	-4.72	-2.35	1.32	4.93	7.36	8.66	9.86	12.33
5	-10.91	-8.20	-6.89	-5.46	-2.87	1.15	5.17	7.76	9.19	10.50	13.21
6	-12.10	-9.23	-7.84	-6.33	-3.58	.68	4.94	7.69	9.20	10.59	13.46
7	-13.53	-10.40	-8.89	-7.24	-4.25	.39	5.03	8.02	9.67	11.18	14.31
8	-15.09	-11.74	-10.12	-8.36	-5.15	-.18	4.79	8.00	9.76	11.38	14.73
9	-17.18	-13.45	-11.64	-9.67	-6.10	-.56	4.38	8.55	10.52	12.33	16.06
10	-21.21	-16.68	-14.84	-12.10	-7.77	-1.05	5.67	10.00	12.39	14.58	19.11
11	-24.48	-19.30	-16.70	-14.06	-9.10	-1.41	6.28	11.24	13.97	16.48	21.66
12	-27.79	-22.02	-19.27	-16.18	-10.65	-2.08	6.49	12.02	15.06	17.95	23.63
13	-30.21	-23.34	-20.49	-17.39	-11.77	-3.05	5.67	11.29	14.39	17.24	23.11
14	-32.40	-24.46	-21.07	-18.47	-10.74	-3.41	3.92	8.65	11.25	13.64	18.58
15	-34.89	-26.44	-22.77	-19.95	-9.75	-2.53	2.59	5.89	7.71	9.38	12.83
16	-37.18	-28.58	-24.32	-21.32	-8.95	-1.60	2.26	4.75	6.12	7.38	9.98
17	-39.48	-30.34	-26.31	-23.18	-8.14	-.97	2.20	4.24	5.37	6.40	8.54
18	-41.78	-32.31	-28.37	-25.35	-7.35	-.63	2.24	4.09	5.11	6.05	7.98
19	-44.08	-34.56	-30.72	-27.80	-6.56	-.56	2.02	3.68	4.60	5.44	7.18
20	-46.38	-36.81	-33.02	-30.11	-5.79	-.43	1.93	3.45	4.29	5.06	6.65
21	-48.68	-39.09	-35.29	-32.32	-5.02	-.27	2.19	3.78	4.65	5.45	7.11
22	-50.98	-41.37	-37.56	-34.53	-4.25	-.18	2.56	4.33	5.30	6.19	8.04
23	-53.28	-43.65	-39.83	-36.74	-3.48	-.08	2.82	4.69	5.72	6.67	8.62
24	-55.58	-45.93	-42.10	-38.95	-2.71	-.13	2.65	4.44	5.43	6.34	8.21
25	-57.88	-48.21	-44.37	-41.16	-1.94	-.35	2.34	4.07	5.03	5.91	7.72
26	-60.18	-50.49	-46.64	-43.37	-1.17	-.78	1.99	3.78	4.76	5.66	7.53
27	-62.48	-52.77	-48.91	-45.58	-.40	-1.10	1.79	3.65	4.68	5.62	7.57
28	-64.78	-55.05	-51.18	-47.79	.37	-.36	2.52	4.39	5.41	6.35	8.30
29	-67.08	-57.33	-53.45	-49.99	1.14	-.43	3.25	5.62	6.93	8.13	10.61
30	-69.38	-59.61	-55.72	-52.20	1.91	-.24	3.72	5.96	7.19	8.33	10.67
31	-71.68	-61.89	-57.99	-54.41	2.68	.99	4.97	7.54	8.95	10.25	12.93
32	-73.98	-64.17	-60.26	-56.62	3.45	1.43	5.72	8.49	10.01	11.41	14.30
33	-76.28	-66.45	-62.53	-58.83	4.22	1.31	5.10	7.54	8.88	10.12	12.66
34	-78.58	-68.73	-64.80	-61.04	5.00	1.22	6.25	9.50	11.28	12.93	16.32
35	-80.88	-71.01	-67.07	-63.25	5.77	.41	5.31	8.47	10.21	11.00	15.10
36	-83.18	-73.29	-69.34	-65.46	6.54	.81	5.61	8.71	10.52	11.29	15.22
37	-85.48	-75.57	-71.61	-67.67	7.31	.57	5.88	9.31	11.19	12.93	16.51
38	-87.78	-77.85	-73.85	-69.88	8.08	1.33	6.75	10.25	12.17	13.29	17.59
39	-90.08	-80.13	-76.09	-72.09	8.85	.99	6.08	9.36	11.16	12.02	16.25
40	-92.38	-82.41	-78.31	-74.30	9.62	.06	5.27	8.63	10.48	12.17	15.68
41	-94.68	-84.69	-80.53	-76.51	10.39	-.52	5.12	8.75	10.76	12.60	16.39
42	-96.98	-86.97	-82.75	-78.72	11.16	-.32	5.47	9.21	11.27	13.16	17.06
43	-99.28	-89.25	-84.97	-80.93	11.93	-.63	6.94	11.01	13.25	15.31	19.57
44	-101.58	-91.53	-87.19	-83.14	12.70	-.94	8.49	12.85	15.25	17.45	22.01
45	-103.88	-93.81	-89.41	-85.35	13.47	2.61	9.39	13.76	16.17	18.38	22.94
46	-106.18	-96.09	-91.63	-87.56	14.24	3.74	11.14	15.91	18.54	20.95	25.94
47	-108.48	-98.37	-93.85	-89.77	15.01	4.61	12.64	17.82	20.68	23.30	28.71
48	-110.78	-100.65	-96.07	-91.98	15.78	4.65	12.54	17.63	20.43	23.00	28.32
49	-113.08	-102.93	-98.29	-94.19	16.55	4.11	12.20	17.41	20.29	22.93	28.38
50	-115.38	-105.21	-100.51	-96.40	17.32	4.09	13.38	19.37	22.67	25.70	31.95
51	-117.68	-107.49	-102.73	-98.61	18.09	4.88	13.99	19.87	23.10	26.08	32.21
52	-119.98	-109.77	-104.95	-100.82	18.86	5.55	15.18	21.39	24.81	27.95	34.44
53	-122.28	-112.05	-107.17	-103.03	19.63	5.29	15.89	22.73	26.50	29.96	37.10
54	-124.58	-114.33	-109.39	-105.24	20.40	5.52	16.12	23.09	26.93	30.46	37.75
55	-126.88	-116.61	-111.61	-107.45	21.17	5.25	16.14	23.16	27.03	30.58	37.92
56	-129.18	-118.89	-113.83	-109.66	21.94	4.86	14.93	21.68	25.40	28.82	35.87
57	-131.48	-121.17	-116.05	-111.87	22.71	3.85	15.64	23.24	27.42	31.27	39.21
58	-133.78	-123.45	-118.27	-114.08	23.48	4.23	16.98	25.20	29.73	33.89	42.98
59	-136.08	-125.73	-120.49	-116.29	24.25	6.56	19.46	27.77	32.35	36.56	45.25
60	-138.38	-128.01	-122.71	-118.50	25.02	9.81	24.37	34.02	39.33	44.22	53.30
61	-140.68	-130.29	-124.93	-120.71	25.79	9.17	23.87	33.35	38.57	43.37	53.27
62	-142.98	-132.57	-127.15	-122.92	26.56	8.93	23.43	32.78	37.93	42.66	52.43
63	-145.28	-134.85	-129.37	-125.13	27.33	8.69	22.99	32.21	37.29	41.96	51.59
64	-147.58	-137.13	-131.59	-127.34	28.10	8.45	22.55	31.64	36.65	41.25	50.75
65	-149.88	-139.41	-133.81	-129.55	28.87	8.21	22.21	31.24	36.21	40.78	50.21
66	-152.18	-141.69	-136.03	-131.76	29.64	7.96	21.76	30.66	35.56	40.06	49.36
67	-154.48	-143.97	-138.25	-133.97	30.41	7.72	21.32	30.09	34.92	39.36	48.52
68	-156.78	-146.25	-140.47	-136.18	31.18	7.48	20.88	29.52	34.28	38.65	47.68
69	-159.08	-148.53	-142.69	-138.39	31.95	7.24	20.44	28.95	33.64	37.95	46.84
70	-161.38	-150.81	-144.91	-140.60	32.72	7.00	20.00	28.38	33.00	37.24	46.00

TABLE 11.9. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

SEPTEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.32	-6.98	-6.04	-5.02	-3.16	-2.28	2.60	4.46	5.49	6.42	8.36
1	-15.38	-11.84	-10.12	-8.25	-4.86	-4.40	5.06	9.05	10.62	12.64	16.19
2	-14.66	-11.26	-9.61	-7.32	-4.56	-4.49	5.54	8.30	10.52	12.24	15.64
3	-14.06	-10.77	-9.17	-7.43	-4.28	-4.61	5.50	8.65	10.29	11.89	15.29
4	-13.84	-10.53	-9.02	-7.31	-4.20	-4.62	5.44	8.55	10.25	11.83	15.29
5	-14.88	-11.44	-9.78	-7.97	-4.68	-4.42	5.52	8.81	10.62	12.28	15.72
6	-16.18	-12.50	-10.72	-8.73	-5.26	-4.20	5.66	9.13	11.12	12.77	16.53
7	-17.49	-13.51	-11.58	-9.48	-5.67	-4.24	6.15	9.06	12.06	13.56	17.97
8	-19.45	-15.06	-12.93	-10.61	-6.41	-4.11	6.03	10.93	13.15	15.29	19.67
9	-21.32	-16.51	-14.13	-11.64	-7.04	-4.10	7.24	11.84	14.28	16.71	21.52
10	-24.49	-19.04	-16.40	-13.52	-8.31	-4.22	7.87	13.09	15.96	18.60	24.05
11	-27.91	-21.71	-18.75	-15.53	-9.63	-4.63	8.43	14.27	17.49	20.45	26.55
12	-31.10	-24.39	-21.14	-17.60	-11.13	-4.22	8.74	15.10	18.70	21.95	28.66
13	-33.29	-26.22	-22.30	-19.02	-12.31	-4.32	8.67	15.44	19.15	22.58	29.65
14	-31.86	-25.25	-22.05	-18.57	-12.24	-2.43	7.38	13.71	17.19	20.39	27.50
15	-24.98	-19.88	-17.41	-14.72	-9.34	-2.27	5.30	10.13	12.37	15.34	20.44
16	-18.01	-14.39	-12.04	-10.73	-7.27	-1.90	3.47	6.93	8.64	10.56	14.21
17	-12.68	-10.03	-8.32	-7.45	-4.36	-1.10	2.76	5.25	6.02	7.38	10.43
18	-10.17	-8.05	-7.02	-5.90	-2.87	-0.72	2.42	4.46	5.59	6.61	8.73
19	-8.55	-6.77	-5.91	-4.97	-2.27	-0.63	2.01	3.71	4.65	5.51	7.29
20	-7.66	-6.04	-5.28	-4.41	-2.86	-0.46	1.94	3.49	4.34	5.12	6.74
21	-7.78	-6.08	-5.26	-4.37	-2.74	-0.22	2.30	3.33	4.32	5.54	7.34
22	-7.78	-6.09	-5.27	-4.38	-2.76	-0.25	2.26	3.88	4.77	5.59	7.28
23	-7.74	-6.06	-5.25	-4.37	-2.76	-0.27	2.22	3.83	4.71	5.52	7.22
24	-8.26	-6.52	-5.67	-4.75	-3.08	-0.49	2.10	3.77	4.69	5.54	7.29
25	-9.15	-7.26	-6.34	-5.34	-3.52	-0.70	2.12	3.94	4.74	5.95	7.75
26	-8.97	-7.17	-6.30	-5.35	-3.53	-0.96	1.71	3.43	4.38	5.25	7.05
27	-10.11	-8.08	-7.09	-6.02	-4.07	-1.05	1.97	3.92	4.39	5.36	8.21
28	-10.70	-8.37	-7.25	-6.02	-3.79	-0.34	3.11	5.33	6.56	7.68	10.01
29	-10.23	-7.96	-6.85	-5.65	-3.47	-0.09	3.30	5.48	6.68	7.78	10.06
30	-11.46	-8.85	-7.58	-6.21	-3.70	-0.17	4.05	6.55	7.93	9.19	11.81
31	-9.88	-7.40	-6.20	-4.89	-2.51	1.17	4.85	7.22	8.53	9.73	12.21
32	-11.37	-8.48	-7.08	-5.56	-2.79	1.50	5.78	8.55	10.07	11.47	14.36
33	-10.15	-7.48	-6.18	-4.77	-2.21	1.75	5.72	8.28	9.69	10.99	13.66
34	-10.39	-7.74	-6.46	-5.06	-2.53	1.39	5.32	7.85	9.25	10.53	13.18
35	-12.44	-9.39	-7.91	-6.30	-3.38	1.15	5.68	8.60	10.21	11.69	14.74
36	-13.77	-10.48	-8.89	-7.17	-4.02	-0.85	5.72	8.86	10.59	12.18	15.46
37	-14.50	-11.10	-9.45	-7.65	-4.40	-0.65	5.70	8.96	10.76	12.40	15.81
38	-14.84	-11.40	-9.74	-7.93	-4.65	-0.45	5.54	8.83	10.64	12.30	15.73
39	-16.09	-12.31	-10.48	-8.49	-4.88	-0.73	6.34	9.95	11.94	13.77	17.55
40	-17.74	-13.61	-11.60	-9.42	-5.46	-0.68	6.82	10.78	12.97	14.97	19.11
41	-20.06	-15.57	-13.39	-11.02	-6.72	-0.04	6.63	10.93	13.30	15.48	19.98
42	-22.22	-17.38	-15.08	-12.48	-7.85	-0.66	6.52	11.16	13.71	16.05	20.89
43	-22.12	-17.11	-14.68	-12.04	-7.24	-0.19	7.63	12.42	15.06	17.49	22.50
44	-22.54	-17.12	-14.50	-11.64	-6.45	1.60	9.64	14.83	17.69	20.31	25.73
45	-20.97	-15.82	-13.33	-10.61	-5.68	1.97	9.62	14.56	17.27	19.77	24.92
46	-21.22	-15.70	-13.03	-10.13	-4.85	3.34	11.52	16.80	19.71	22.38	27.89
47	-16.73	-12.09	-9.85	-7.40	-2.97	3.92	10.80	15.24	17.68	19.93	24.56
48	-15.50	-11.16	-9.06	-6.77	-2.62	3.82	10.27	14.42	16.71	18.81	23.15
49	-15.61	-11.04	-8.83	-6.42	-2.05	4.73	11.51	15.89	18.30	20.51	25.08
50	-15.82	-11.18	-8.94	-6.49	-2.05	4.84	11.73	16.17	18.62	20.86	25.51
51	-17.23	-12.32	-9.94	-7.35	-2.66	4.63	11.92	16.62	19.21	21.54	26.49
52	-16.88	-11.92	-9.53	-6.92	-2.18	5.17	12.52	17.26	19.87	22.26	27.21
53	-15.67	-10.74	-8.36	-5.76	-1.04	6.27	13.58	18.30	20.89	23.28	28.20
54	-18.22	-12.67	-9.99	-7.06	-1.75	6.48	14.71	20.02	22.94	25.63	31.18
55	-21.29	-15.21	-12.26	-9.06	-3.23	5.80	14.83	20.66	23.36	26.81	32.90
56	-21.01	-14.90	-11.94	-8.72	-2.87	6.21	15.28	21.13	24.35	27.31	33.42
57	-18.43	-12.78	-10.04	-7.06	-1.65	6.74	15.13	20.54	23.52	26.26	31.91
58	-16.36	-10.73	-8.01	-5.05	-0.33	8.68	17.03	22.41	25.37	28.09	33.72
59	-14.16	-9.05	-6.57	-3.87	1.02	8.61	16.20	21.10	23.79	26.27	31.38
60	-19.09	-13.49	-10.78	-7.83	-2.47	5.83	14.14	19.50	22.45	25.16	30.76
61	-18.53	-13.17	-10.53	-7.65	-2.43	5.67	13.77	18.99	21.87	24.51	29.97
62	-18.21	-12.89	-10.31	-7.50	-2.41	5.49	13.39	18.48	21.29	23.87	29.19
63	-18.08	-12.83	-10.28	-7.51	-2.48	5.32	13.12	18.15	20.92	23.47	28.72
64	-17.66	-12.54	-10.06	-7.36	-2.46	5.14	12.74	17.64	20.34	22.82	27.94
65	-17.23	-12.24	-9.83	-7.20	-2.43	4.97	12.37	17.14	19.77	22.18	27.17
66	-16.80	-11.95	-9.60	-7.04	-2.40	4.80	12.00	16.64	19.20	21.55	26.40
67	-16.38	-11.66	-9.38	-6.89	-2.38	4.62	11.62	16.13	18.62	20.90	25.62
68	-16.25	-11.60	-9.35	-6.90	-2.45	4.45	11.35	15.80	18.25	20.50	25.15
69	-15.83	-11.32	-9.13	-6.75	-2.43	4.27	10.97	15.29	17.67	19.86	24.37
70	-15.40	-11.02	-8.90	-6.59	-2.40	4.10	10.60	14.79	17.10	19.22	23.60

TABLE 11.10. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

OCTOBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.34	-8.32	-7.34	-6.27	-4.34	-1.34	1.66	3.59	4.66	5.64	7.66
1	-15.54	-13.14	-11.50	-9.71	-6.46	-1.42	1.62	6.87	8.66	10.30	13.70
2	-14.89	-11.64	-10.06	-8.34	-5.23	-1.40	4.47	7.54	9.26	10.84	14.09
3	-14.83	-11.48	-9.86	-8.10	-4.93	.08	5.05	8.26	10.02	11.64	14.99
4	-15.46	-11.82	-10.21	-8.35	-4.96	.29	5.54	8.93	10.79	12.50	16.04
5	-17.43	-13.46	-11.53	-9.43	-5.63	.27	6.17	9.97	12.07	14.02	17.97
6	-19.51	-15.04	-12.87	-10.51	-6.22	.41	7.05	11.33	13.62	15.86	20.33
7	-22.30	-17.19	-14.72	-12.03	-7.14	.44	8.02	12.91	15.60	18.07	23.13
8	-25.28	-19.47	-16.66	-13.61	-8.04	.58	9.20	14.76	17.82	20.63	26.44
9	-28.43	-22.69	-19.40	-15.92	-9.31	.78	10.87	17.38	20.96	24.25	31.05
10	-34.74	-26.70	-22.80	-18.56	-10.86	1.00	13.02	20.72	24.96	28.86	36.90
11	-39.75	-30.61	-26.19	-21.32	-12.61	.96	14.53	23.28	28.10	32.53	41.67
12	-42.27	-32.70	-28.02	-22.92	-13.67	.68	15.07	24.28	29.38	34.06	43.73
13	-49.45	-30.62	-26.35	-21.70	-13.25	-.15	12.95	21.40	26.05	30.32	39.15
14	-32.93	-25.71	-22.21	-18.40	-11.44	-.77	9.95	16.86	20.67	24.17	31.39
15	-25.95	-20.23	-17.57	-14.54	-9.11	-.63	7.73	13.16	16.15	18.90	24.57
16	-20.25	-15.85	-13.72	-11.40	-7.19	-.66	5.87	10.08	12.40	14.53	18.93
17	-14.60	-11.33	-9.84	-8.12	-5.08	-.32	4.44	7.51	9.20	10.75	13.96
18	-11.46	-8.98	-7.70	-6.47	-4.10	-.42	3.22	5.63	6.94	8.14	10.62
19	-10.00	-7.46	-6.82	-5.69	-3.64	-.46	2.72	4.77	5.90	6.94	9.03
20	-9.05	-7.08	-6.13	-5.05	-3.21	-.29	2.63	4.51	5.55	6.50	8.47
21	-8.72	-6.86	-5.90	-4.98	-3.20	-.44	2.32	4.10	5.08	5.98	7.84
22	-9.20	-7.27	-6.34	-5.32	-3.48	-.62	2.24	4.06	5.10	6.03	7.96
23	-8.89	-7.02	-6.11	-5.12	-3.33	-.55	2.23	4.02	5.01	5.92	7.79
24	-8.94	-7.07	-6.11	-5.11	-3.28	-.45	2.38	4.21	5.21	6.13	8.04
25	-9.36	-7.37	-6.41	-5.36	-3.46	-.51	2.44	4.34	5.39	6.35	8.34
26	-9.92	-7.85	-6.85	-5.76	-3.78	-.71	2.36	4.34	5.43	6.43	8.50
27	-10.52	-8.36	-7.31	-6.17	-4.10	-.89	2.32	4.39	5.53	6.58	8.74
28	-9.52	-7.12	-5.98	-4.69	-2.40	1.17	4.73	7.02	8.29	9.45	11.65
29	-11.14	-8.39	-7.06	-5.61	-2.98	1.10	5.18	7.81	9.26	10.59	13.34
30	-10.28	-7.74	-6.51	-5.18	-2.46	1.02	4.78	7.21	8.55	9.78	12.32
31	-10.64	-7.93	-6.62	-5.19	-2.60	1.42	5.44	8.03	9.46	10.77	13.44
32	-10.70	-7.93	-6.58	-5.12	-2.46	1.66	5.78	8.44	9.90	11.24	14.02
33	-12.69	-9.49	-7.94	-6.25	-3.19	1.57	6.32	9.39	11.08	12.63	15.83
34	-13.29	-10.20	-8.70	-7.06	-4.10	.50	5.10	8.06	9.69	11.20	14.29
35	-17.20	-13.42	-11.59	-9.60	-5.98	-.37	5.24	8.86	10.86	12.69	16.47
36	-17.06	-13.43	-11.67	-9.76	-6.28	-.89	4.50	7.98	9.89	11.65	15.28
37	-16.17	-12.62	-10.90	-9.03	-5.62	-.35	4.92	8.32	10.19	11.91	15.47
38	-18.66	-14.54	-12.55	-10.38	-6.44	-.34	5.77	9.71	11.88	13.87	17.98
39	-16.53	-12.65	-10.78	-8.73	-5.02	.73	6.48	10.19	12.24	14.12	17.99
40	-15.53	-11.75	-9.92	-7.93	-4.31	1.30	6.91	10.53	12.52	14.35	18.13
41	-16.90	-12.76	-10.76	-8.58	-4.62	1.53	7.67	11.63	13.81	15.82	19.96
42	-17.86	-13.34	-11.15	-8.77	-4.44	2.27	8.98	13.31	15.69	17.88	22.40
43	-17.26	-12.85	-10.71	-8.39	-4.16	2.38	8.93	13.15	15.48	17.62	22.03
44	-17.99	-13.12	-10.76	-8.20	-3.54	3.69	10.92	15.58	18.14	20.50	25.37
45	-16.62	-11.88	-9.59	-7.08	-2.54	4.50	11.55	16.09	18.59	20.89	25.63
46	-18.24	-12.93	-10.35	-7.55	-2.46	5.43	13.32	18.41	21.21	23.78	29.10
47	-19.64	-13.85	-11.04	-7.99	-2.45	6.15	14.74	20.29	23.34	26.14	31.93
48	-19.69	-13.69	-10.78	-7.62	-1.87	7.04	15.95	21.69	24.86	27.76	33.76
49	-22.55	-15.73	-12.51	-8.94	-2.47	7.57	17.62	24.09	27.66	30.93	37.70
50	-21.01	-14.64	-11.55	-8.20	-2.10	7.35	16.80	22.90	26.26	29.34	35.71
51	-19.68	-13.54	-10.57	-7.34	-1.46	7.64	16.75	22.62	25.86	28.83	34.96
52	-19.55	-13.34	-10.33	-7.05	-1.10	8.13	17.35	23.30	26.58	29.59	35.80
53	-18.52	-12.59	-9.72	-6.60	-.93	7.86	16.66	22.33	25.45	28.32	34.24
54	-17.86	-12.11	-9.32	-6.29	-.79	7.75	16.29	21.79	24.82	27.61	33.36
55	-18.84	-13.11	-10.34	-7.32	-1.83	6.67	15.18	20.67	23.69	26.46	32.19
56	-18.99	-13.40	-10.70	-7.75	-2.41	5.88	14.17	19.52	22.46	25.16	30.75
57	-23.18	-16.93	-13.91	-10.61	-4.64	4.64	13.91	19.89	23.18	26.21	32.45
58	-27.06	-20.02	-16.61	-12.90	-6.16	4.29	14.74	21.47	25.18	28.59	35.63
59	-28.11	-20.75	-17.19	-13.31	-6.27	4.65	15.57	22.61	26.49	30.05	37.40
60	-31.27	-23.65	-19.96	-15.95	-8.65	2.65	13.96	21.25	25.27	28.96	36.57
61	-29.79	-22.51	-18.99	-15.15	-8.19	2.61	13.41	20.37	24.21	27.73	35.01
62	-28.64	-21.63	-18.24	-14.55	-7.84	2.56	12.96	19.67	23.36	26.75	33.76
63	-27.18	-20.51	-17.28	-13.76	-7.38	2.52	12.42	18.80	22.32	25.55	32.22
64	-25.73	-19.40	-16.33	-12.99	-6.93	2.47	11.87	17.93	21.27	24.34	30.67
65	-24.57	-18.51	-15.57	-12.37	-6.57	2.43	11.43	17.23	20.43	23.37	29.43
66	-23.12	-17.39	-14.62	-11.60	-6.12	2.38	10.88	16.36	19.38	22.15	27.88
67	-21.66	-16.27	-13.66	-10.82	-5.66	2.34	10.34	15.50	18.34	20.95	26.34
68	-20.21	-15.16	-12.71	-10.05	-5.21	2.29	9.79	14.63	17.29	19.74	24.79
69	-19.05	-14.27	-11.95	-9.43	-4.85	2.25	9.35	13.93	16.45	18.77	23.88
70	-17.60	-13.15	-11.00	-8.66	-4.40	2.20	8.80	13.06	15.40	17.55	22.80

TABLE 11.11. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

NOVEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.01	-9.02	-7.67	-6.02	-4.11	-1.15	1.70	3.09	4.74	5.70	7.53
1	-10.89	-10.07	-8.72	-7.07	-5.16	-2.20	0.65	2.04	3.69	4.65	6.48
2	-11.10	-10.28	-8.93	-7.28	-5.37	-2.41	0.44	1.83	3.48	4.44	6.27
3	-11.64	-10.82	-9.47	-7.82	-5.93	-2.62	0.23	1.62	3.27	4.23	6.06
4	-12.33	-11.51	-10.16	-8.51	-6.62	-2.83	0.02	1.41	3.06	4.02	5.85
5	-13.33	-12.51	-11.16	-9.51	-7.62	-3.04	-0.19	1.20	2.85	3.81	5.64
6	-14.51	-13.69	-12.34	-10.69	-8.80	-3.25	-0.38	1.00	2.64	3.60	5.43
7	-15.89	-15.07	-13.72	-12.07	-10.18	-3.46	-0.57	0.79	2.43	3.39	5.22
8	-17.47	-16.65	-15.30	-13.65	-11.76	-3.67	-0.76	0.58	2.22	3.18	5.01
9	-19.25	-18.43	-17.08	-15.43	-13.54	-3.88	-0.95	0.37	2.01	2.97	4.80
10	-21.23	-20.41	-19.06	-17.41	-15.52	-4.09	-1.14	0.16	1.80	2.76	4.59
11	-23.41	-22.59	-21.24	-19.59	-17.67	-4.30	-1.33	-0.05	1.59	2.55	4.38
12	-25.79	-24.97	-23.62	-21.97	-19.85	-4.51	-1.52	-0.24	1.38	2.34	4.17
13	-28.37	-27.55	-26.20	-24.55	-22.63	-4.72	-1.71	-0.43	1.17	2.13	3.96
14	-31.15	-30.33	-28.98	-27.33	-25.41	-4.93	-1.90	-0.62	0.96	1.92	3.75
15	-34.23	-33.41	-32.06	-30.41	-28.49	-5.14	-2.09	-0.81	0.75	1.71	3.54
16	-37.61	-36.79	-35.44	-33.79	-31.87	-5.35	-2.28	-1.00	0.54	1.50	3.33
17	-41.29	-40.47	-39.12	-37.47	-35.55	-5.56	-2.47	-1.19	0.33	1.29	3.12
18	-45.27	-44.45	-43.10	-41.45	-39.53	-5.77	-2.66	-1.38	0.12	1.08	2.91
19	-49.55	-48.73	-47.38	-45.73	-43.81	-5.98	-2.85	-1.57	-0.09	0.87	2.70
20	-54.13	-53.31	-51.96	-50.31	-48.39	-6.19	-3.04	-1.76	-0.28	0.66	2.49
21	-58.91	-58.09	-56.74	-55.09	-53.17	-6.40	-3.23	-1.95	-0.47	0.45	2.28
22	-63.89	-63.07	-61.72	-60.07	-58.15	-6.61	-3.42	-2.14	-0.66	0.24	2.07
23	-69.07	-68.25	-66.90	-65.25	-63.33	-6.82	-3.61	-2.33	-0.85	0.03	1.86
24	-74.45	-73.63	-72.28	-70.63	-68.71	-7.03	-3.80	-2.52	-1.04	-0.16	1.65
25	-80.03	-79.21	-77.86	-76.21	-74.29	-7.24	-3.99	-2.71	-1.23	-0.35	1.44
26	-85.81	-84.99	-83.64	-81.99	-80.07	-7.45	-4.18	-2.90	-1.42	-0.54	1.23
27	-91.79	-90.97	-89.62	-87.97	-86.05	-7.66	-4.37	-3.09	-1.61	-0.73	1.02
28	-97.97	-97.15	-95.80	-94.15	-92.23	-7.87	-4.56	-3.28	-1.80	-0.92	0.81
29	-104.35	-103.53	-102.18	-100.53	-98.61	-8.08	-4.75	-3.47	-1.99	-1.11	0.60
30	-110.93	-110.11	-108.76	-107.11	-105.19	-8.29	-4.94	-3.66	-2.18	-1.30	0.39
31	-117.71	-116.89	-115.54	-113.89	-111.97	-8.50	-5.13	-3.85	-2.37	-1.49	0.18
32	-124.69	-123.87	-122.52	-120.87	-118.95	-8.71	-5.32	-4.04	-2.56	-1.68	0.00
33	-131.87	-131.05	-129.70	-128.05	-126.13	-8.92	-5.51	-4.23	-2.75	-1.87	-0.21
34	-139.25	-138.43	-137.08	-135.43	-133.51	-9.13	-5.70	-4.42	-2.94	-2.06	-0.42
35	-146.83	-146.01	-144.66	-143.01	-141.09	-9.34	-5.89	-4.61	-3.13	-2.25	-0.63
36	-154.61	-153.79	-152.44	-150.79	-148.87	-9.55	-6.08	-4.80	-3.32	-2.44	-0.84
37	-162.69	-161.87	-160.52	-158.87	-156.95	-9.76	-6.27	-5.00	-3.51	-2.63	-1.05
38	-170.97	-170.15	-168.80	-167.15	-165.23	-9.97	-6.46	-5.19	-3.70	-2.82	-1.26
39	-179.45	-178.63	-177.28	-175.63	-173.71	-10.18	-6.65	-5.38	-3.89	-3.01	-1.47
40	-188.13	-187.31	-185.96	-184.31	-182.39	-10.39	-6.84	-5.57	-4.08	-3.20	-1.68
41	-197.01	-196.19	-194.84	-193.19	-191.27	-10.60	-7.03	-5.76	-4.27	-3.39	-1.89
42	-206.09	-205.27	-203.92	-202.27	-200.35	-10.81	-7.22	-5.95	-4.46	-3.58	-2.10
43	-215.37	-214.55	-213.20	-211.55	-209.63	-11.02	-7.41	-6.14	-4.65	-3.77	-2.31
44	-224.85	-224.03	-222.68	-221.03	-219.11	-11.23	-7.60	-6.33	-4.84	-3.96	-2.52
45	-234.53	-233.71	-232.36	-230.71	-228.79	-11.44	-7.79	-6.52	-5.03	-4.15	-2.73
46	-244.41	-243.59	-242.24	-240.59	-238.67	-11.65	-7.98	-6.71	-5.22	-4.34	-2.94
47	-254.49	-253.67	-252.32	-250.67	-248.75	-11.86	-8.17	-6.90	-5.41	-4.53	-3.15
48	-264.77	-263.95	-262.60	-260.95	-259.03	-12.07	-8.36	-7.09	-5.60	-4.72	-3.36
49	-275.25	-274.43	-273.08	-271.43	-269.51	-12.28	-8.55	-7.28	-5.79	-4.91	-3.57
50	-285.93	-285.11	-283.76	-282.11	-280.19	-12.49	-8.74	-7.47	-5.98	-5.10	-3.78
51	-296.81	-295.99	-294.64	-292.99	-291.07	-12.70	-8.93	-7.66	-6.19	-5.31	-3.99
52	-307.89	-307.07	-305.72	-304.07	-302.15	-12.91	-9.12	-7.85	-6.38	-5.50	-4.20
53	-319.17	-318.35	-317.00	-315.35	-313.43	-13.12	-9.31	-8.04	-6.57	-5.69	-4.41
54	-330.65	-329.83	-328.48	-326.83	-324.91	-13.33	-9.50	-8.23	-6.76	-5.88	-4.62
55	-342.33	-341.51	-340.16	-338.51	-336.59	-13.54	-9.69	-8.42	-6.95	-6.07	-4.83
56	-354.21	-353.39	-352.04	-350.39	-348.47	-13.75	-9.88	-8.61	-7.14	-6.26	-5.04
57	-366.29	-365.47	-364.12	-362.47	-360.55	-13.96	-10.07	-8.80	-7.33	-6.45	-5.25
58	-378.57	-377.75	-376.40	-374.75	-372.83	-14.17	-10.26	-9.00	-7.53	-6.65	-5.46
59	-390.95	-390.13	-388.78	-387.13	-385.21	-14.38	-10.45	-9.19	-7.72	-6.84	-5.67
60	-403.53	-402.71	-401.36	-399.71	-397.79	-14.59	-10.64	-9.38	-7.91	-7.03	-5.88
61	-416.31	-415.49	-414.14	-412.49	-410.57	-14.80	-10.83	-9.57	-8.04	-7.16	-6.09
62	-429.29	-428.47	-427.12	-425.47	-423.55	-15.01	-11.02	-9.76	-8.23	-7.35	-6.30
63	-442.47	-441.65	-440.30	-438.65	-436.73	-15.22	-11.21	-9.95	-8.42	-7.54	-6.51
64	-455.85	-455.03	-453.68	-452.03	-450.11	-15.43	-11.40	-10.14	-8.61	-7.73	-6.72
65	-469.43	-468.61	-467.26	-465.61	-463.69	-15.64	-11.59	-10.33	-8.80	-7.92	-6.93
66	-483.21	-482.39	-481.04	-479.39	-477.47	-15.85	-11.78	-10.52	-9.00	-8.12	-7.13
67	-497.19	-496.37	-495.02	-493.37	-491.45	-16.06	-11.97	-10.71	-9.19	-8.31	-7.32
68	-511.37	-510.55	-509.20	-507.55	-505.63	-16.27	-12.16	-10.90	-9.38	-8.50	-7.51
69	-525.75	-524.93	-523.58	-521.93	-519.99	-16.48	-12.35	-11.09	-9.57	-8.69	-7.70
70	-540.33	-539.51	-538.16	-536.51	-534.59	-16.69	-12.54	-11.28	-9.76	-8.88	-7.89

TABLE 11.12. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
90 DEGREE FLIGHT AZIMUTH

DECEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-13.33	-8.25	-7.24	-6.14	-4.15	-1.00	2.03	4.02	5.12	6.13	8.21
1	-17.16	-15.20	-12.37	-9.31	-5.58	-.21	6.10	9.73	11.79	13.68	17.58
2	-15.37	-11.75	-10.01	-8.11	-4.55	.71	5.07	9.53	11.43	13.18	16.79
3	-16.53	-12.67	-10.86	-8.77	-5.07	.66	6.39	10.62	12.12	13.95	17.85
4	-18.43	-14.10	-11.31	-9.67	-5.47	1.04	7.55	11.75	14.05	16.18	20.57
5	-21.30	-16.15	-13.65	-10.95	-6.00	1.65	9.36	14.23	16.25	19.45	24.60
6	-23.61	-17.90	-15.24	-12.15	-6.67	1.60	10.27	15.73	18.74	21.52	27.21
7	-26.01	-19.62	-16.67	-13.31	-7.25	2.12	11.51	17.56	20.61	23.95	30.27
8	-23.73	-21.70	-18.32	-14.69	-7.37	2.55	12.33	18.72	23.40	26.82	33.85
9	-32.44	-24.71	-21.61	-18.46	-8.66	3.03	14.72	22.32	26.51	30.36	39.31
10	-36.33	-27.94	-23.61	-20.35	-10.25	3.03	16.43	25.03	29.77	34.12	43.11
11	-40.10	-30.41	-25.71	-20.01	-11.72	3.07	17.46	26.74	31.65	36.55	46.24
12	-41.53	-31.50	-26.60	-21.26	-11.77	3.46	18.45	29.10	33.52	39.42	48.55
13	-38.10	-29.71	-24.11	-19.22	-10.22	3.72	17.66	26.65	31.60	36.15	45.54
14	-40.77	-33.10	-27.35	-22.74	-7.35	7.40	19.73	32.14	36.18	29.90	37.57
15	-25.71	-23.25	-19.17	-15.71	-6.55	7.06	12.65	18.63	23.24	25.37	31.83
16	-23.32	-17.09	-14.31	-11.33	-5.70	7.11	11.32	16.71	19.73	23.51	28.24
17	-20.92	-15.75	-13.22	-10.55	-5.62	7.22	9.65	14.79	17.52	20.63	25.22
18	-17.27	-13.74	-10.31	-8.76	-4.71	1.57	7.35	11.70	14.13	16.18	20.41
19	-15.08	-10.61	-8.55	-7.21	-3.78	1.02	5.02	9.24	11.02	12.65	16.02
20	-11.50	-8.74	-7.51	-6.05	-3.42	.67	4.70	7.40	8.95	10.18	12.94
21	-10.21	-8.24	-7.01	-5.61	-3.15	.68	4.71	6.28	8.34	9.59	12.17
22	-9.34	-7.52	-6.44	-5.23	-3.04	.36	3.76	5.25	7.16	9.27	10.56
23	-10.22	-7.66	-6.71	-5.45	-3.11	.42	3.99	6.29	7.56	8.72	11.13
24	-10.16	-7.75	-6.55	-5.27	-3.34	.67	4.23	6.61	7.89	9.07	11.50
25	-11.44	-8.70	-7.37	-5.92	-3.21	.77	4.24	7.40	8.91	10.24	12.98
26	-12.43	-9.44	-7.93	-6.41	-3.55	.39	5.33	8.19	9.77	11.22	14.21
27	-12.77	-9.61	-8.08	-6.41	-3.59	1.36	5.39	9.01	10.68	12.21	15.37
28	-11.45	-8.15	-6.55	-4.81	-1.66	3.24	8.14	11.30	13.09	14.68	17.94
29	-12.17	-8.59	-6.85	-4.97	-1.54	3.78	9.09	12.52	14.40	16.14	19.72
30	-11.92	-7.93	-6.09	-4.02	-.26	5.58	11.41	15.17	17.24	19.14	23.07
31	-14.47	-9.76	-7.49	-5.01	-.51	6.48	13.46	17.96	20.44	22.72	27.42
32	-17.12	-11.64	-8.98	-6.09	-.85	7.29	15.43	20.68	23.57	26.23	31.71
33	-17.13	-11.44	-8.68	-5.68	-.23	8.22	16.67	22.11	25.11	27.67	33.56
34	-16.84	-11.18	-8.43	-5.45	-.03	8.39	16.79	22.21	25.20	27.94	33.61
35	-17.82	-12.16	-9.41	-6.43	-1.01	7.40	15.81	21.23	24.22	26.96	32.63
36	-20.75	-14.52	-11.50	-8.21	-2.25	7.00	16.25	22.21	25.49	28.51	34.79
37	-25.14	-17.98	-14.51	-10.74	-3.88	6.74	17.37	24.22	27.99	31.86	38.62
38	-29.57	-21.49	-17.57	-13.32	-5.58	6.41	18.40	26.14	30.40	34.31	42.39
39	-31.66	-22.90	-18.67	-14.05	-5.67	7.32	20.31	28.68	33.30	37.54	46.29
40	-31.44	-22.72	-18.49	-13.90	-5.55	7.39	20.34	28.68	33.28	37.50	46.22
41	-28.60	-20.54	-16.64	-12.40	-4.69	7.26	19.22	26.92	31.17	35.07	43.12
42	-26.47	-18.88	-15.21	-11.21	-3.94	7.32	18.58	25.85	29.85	33.52	41.11
43	-25.06	-17.71	-14.15	-10.27	-3.24	7.67	18.58	25.62	29.49	33.05	40.40
44	-23.75	-16.75	-13.35	-9.66	-2.95	7.46	17.86	24.57	28.27	31.66	38.67
45	-23.87	-16.85	-13.45	-9.75	-3.03	7.40	17.82	24.54	28.25	31.65	38.67
46	-23.83	-16.93	-13.44	-9.75	-3.05	7.34	17.73	24.43	28.12	31.51	38.51
47	-22.45	-15.53	-12.18	-8.53	-1.91	8.36	18.62	25.25	28.89	32.24	39.16
48	-21.89	-14.82	-11.40	-7.67	-.91	9.59	20.08	26.94	30.57	33.99	41.06
49	-21.53	-14.48	-11.07	-7.36	-.62	9.83	20.29	27.03	30.74	34.15	41.19
50	-22.56	-15.44	-11.98	-8.23	-1.41	9.17	19.74	26.56	30.32	33.77	40.89
51	-23.93	-16.38	-12.72	-8.74	-1.51	9.71	20.92	28.15	32.13	35.79	43.35
52	-25.19	-17.41	-13.65	-9.55	-2.10	9.44	20.99	28.43	32.53	36.30	44.08
53	-26.36	-18.53	-14.75	-10.62	-3.13	8.48	20.10	27.59	31.71	35.50	43.32
54	-27.47	-19.54	-15.69	-11.51	-3.92	7.86	19.64	27.24	31.42	35.27	43.20
55	-32.70	-23.81	-19.51	-14.83	-6.32	6.87	20.06	28.56	33.24	37.55	46.43
56	-35.84	-26.22	-21.57	-16.50	-7.29	6.98	21.25	30.45	35.52	40.18	49.79
57	-38.40	-28.45	-23.63	-18.39	-8.87	5.90	20.66	30.18	35.43	40.24	50.13
58	-39.28	-29.07	-24.13	-18.75	-8.98	6.18	21.33	31.10	36.48	41.42	51.63
59	-45.46	-34.74	-29.55	-23.90	-13.64	2.27	18.18	28.43	34.08	39.27	45.99
60	-53.36	-41.59	-35.60	-29.08	-17.23	1.13	19.49	31.34	37.86	43.85	56.22
61	-49.59	-38.20	-32.69	-26.69	-15.79	1.11	18.01	28.91	34.91	40.42	51.81
62	-45.12	-34.75	-29.72	-24.25	-14.32	1.08	16.48	26.41	31.88	36.91	47.28
63	-40.64	-31.28	-26.74	-21.80	-12.84	1.06	14.96	23.92	28.86	33.40	42.76
64	-36.17	-27.82	-23.77	-19.37	-11.37	1.03	13.43	21.43	25.83	29.88	38.23
65	-31.98	-24.57	-20.98	-17.07	-9.98	1.02	12.02	19.11	23.02	26.61	34.02
66	-27.51	-21.11	-18.01	-14.64	-8.51	.97	10.49	16.62	19.99	23.09	29.49
67	-23.03	-17.64	-15.03	-12.19	-7.03	.97	8.97	14.13	16.97	19.58	24.97
68	-18.55	-14.17	-12.05	-9.74	-5.55	.95	7.45	11.64	13.95	16.07	20.45
69	-14.08	-10.71	-9.08	-7.30	-4.08	.92	5.92	9.14	10.92	12.55	15.87
70	-9.60	-7.24	-6.10	-4.86	-2.60	.90	4.40	6.66	7.90	9.04	11.40

TABLE 12.1. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

JANUARY

Cumulative Percentage Probability											
Alt.(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.75	-6.57	-5.52	-4.37	-2.29	.95	4.18	6.26	7.41	9.47	10.64
1	-18.19	-13.50	-11.23	-9.76	-4.27	2.69	9.65	14.14	16.61	18.88	23.57
2	-13.85	-9.21	-6.97	-4.52	-0.08	6.80	13.68	19.12	20.57	22.81	27.45
3	-11.24	-6.39	-4.04	-1.48	3.16	10.36	17.56	22.21	24.77	27.12	31.97
4	-9.73	-4.88	-1.94	.83	5.86	17.66	21.46	26.49	29.26	31.80	37.05
5	-8.84	-3.02	-1.19	2.88	8.45	17.10	25.75	31.33	34.40	37.22	43.04
6	-7.10	-1.89	2.12	5.40	11.35	20.57	29.79	35.74	39.02	42.03	49.24
7	-6.65	.22	3.55	7.17	13.74	23.94	34.13	40.71	44.33	47.66	54.53
8	-5.96	1.50	5.12	9.05	16.19	27.27	39.35	45.44	49.42	53.04	60.50
9	-6.71	1.65	5.70	10.11	18.11	30.52	42.92	50.93	55.33	59.38	67.74
10	-6.53	2.57	6.97	11.76	20.47	33.97	47.46	56.17	60.36	65.37	74.46
11	-5.77	3.93	8.62	13.74	23.02	37.42	51.82	61.10	66.21	70.91	80.61
12	-1.73	7.58	12.03	17.00	25.91	39.73	53.55	62.46	67.37	71.97	81.14
13	2.30	10.76	14.85	19.32	27.43	39.99	52.55	60.66	65.12	69.22	77.69
14	4.29	11.91	15.54	19.61	26.90	38.20	49.51	56.80	60.31	64.50	72.12
15	4.22	10.92	14.17	17.70	24.12	34.06	44.01	50.43	53.96	57.20	63.91
16	3.19	9.02	11.85	14.92	20.50	29.16	37.82	43.40	46.47	49.30	55.13
17	.17	5.46	8.02	10.41	15.88	23.73	31.59	36.64	39.43	41.99	47.20
18	-4.22	.69	3.06	5.65	10.34	17.62	24.90	29.60	32.18	34.56	39.46
19	-8.63	-3.94	-1.67	.80	5.29	12.25	19.21	23.70	26.18	28.45	32.14
20	-10.57	-6.35	-4.30	-2.08	1.97	8.23	14.50	19.54	20.77	22.81	27.03
21	-13.41	-9.06	-6.96	-4.66	-1.50	5.95	12.40	16.56	18.85	20.95	25.30
22	-16.77	-11.95	-9.62	-7.08	-2.43	4.67	11.81	16.42	18.96	21.29	26.10
23	-18.58	-13.53	-11.09	-8.41	-3.58	3.92	11.42	16.26	18.93	21.37	26.43
24	-21.03	-15.42	-12.71	-9.75	-4.38	3.94	12.27	17.64	20.59	23.31	29.97
25	-21.79	-15.78	-12.88	-9.71	-3.97	4.94	13.85	19.59	22.76	25.66	31.67
26	-25.79	-18.55	-15.07	-11.28	-4.40	6.27	16.93	23.31	27.60	31.08	39.27
27	-30.11	-21.87	-17.87	-13.53	-5.63	6.61	18.85	26.74	31.09	35.09	43.32
28	-35.31	-25.42	-21.99	-16.43	-7.07	5.85	17.37	25.13	29.29	33.11	41.01
29	-39.18	-29.84	-26.36	-19.49	-8.63	7.10	20.84	29.69	34.57	39.05	48.30
30	-47.55	-37.89	-31.97	-26.43	-10.38	9.21	24.80	34.85	40.38	45.47	55.97
31	-41.32	-29.66	-24.01	-17.86	-6.70	10.61	27.92	39.09	45.24	50.88	62.55
32	-44.68	-31.94	-25.80	-19.13	-7.01	11.79	30.58	42.70	49.38	55.51	68.17
33	-49.82	-35.78	-28.97	-21.57	-8.13	12.72	33.57	47.01	54.41	61.21	75.26
34	-51.57	-38.64	-31.36	-23.43	-9.04	13.27	35.59	49.98	57.90	65.18	80.22
35	-59.56	-43.29	-35.41	-26.84	-11.26	12.89	37.04	52.61	61.18	69.06	85.33
36	-61.88	-44.35	-36.25	-27.44	-11.43	13.40	38.23	54.24	63.05	71.15	87.88
37	-60.62	-43.86	-35.75	-26.92	-10.88	13.99	38.85	54.89	63.72	71.84	88.59
38	-63.42	-46.04	-37.68	-28.54	-11.95	13.79	39.52	56.11	65.25	73.65	90.99
39	-63.24	-45.80	-37.40	-28.26	-11.66	14.09	39.83	56.43	65.57	73.97	91.31
40	-68.29	-51.32	-42.12	-32.12	-18.01	15.10	40.21	56.40	65.32	73.51	90.43
41	-63.29	-45.74	-37.24	-28.68	-11.20	14.84	40.89	57.68	66.93	75.43	92.98
42	-68.55	-53.52	-43.27	-35.27	-15.99	15.30	40.58	56.88	65.85	74.11	91.14
43	-61.85	-43.97	-35.69	-26.69	-10.33	15.03	40.39	56.74	65.75	74.02	91.11
44	-57.78	-41.31	-33.33	-24.65	-8.89	15.56	40.00	55.77	64.45	72.43	88.90
45	-66.68	-50.20	-42.21	-33.53	-17.75	16.71	41.18	56.95	65.64	73.62	90.10
46	-56.74	-39.98	-31.87	-23.03	-6.99	17.89	42.77	58.81	67.64	75.76	92.52
47	-56.81	-39.90	-31.71	-22.80	-6.62	18.48	43.58	59.76	68.67	76.86	93.77
48	-54.23	-37.72	-29.73	-21.03	-5.23	19.27	43.77	59.58	68.28	76.27	92.78
49	-48.97	-33.18	-25.53	-17.21	-2.09	21.34	44.78	59.89	68.22	75.86	91.65
50	-47.02	-31.38	-23.80	-15.56	-1.58	22.64	45.86	60.84	69.08	76.66	92.30
51	-46.91	-31.11	-23.45	-15.12	.01	23.47	46.93	62.06	70.39	78.05	93.45
52	-46.36	-30.15	-22.30	-13.76	1.75	25.81	49.86	65.37	73.92	81.77	97.97
53	-42.02	-26.15	-18.47	-10.11	5.08	28.63	52.18	67.36	75.73	83.41	99.27
54	-38.13	-22.49	-14.92	-6.68	8.29	31.50	54.71	69.68	77.93	85.50	101.14
55	-39.39	-23.28	-15.48	-6.99	8.43	32.35	56.26	71.68	80.18	87.98	104.09
56	-31.92	-16.72	-9.39	-1.33	13.24	35.82	58.41	72.97	80.99	88.36	103.58
57	-38.68	-14.68	-6.82	1.62	16.95	40.73	64.50	79.84	88.28	96.04	112.05
58	-32.88	-15.91	-7.27	1.58	17.66	42.60	67.53	83.61	92.46	100.60	117.39
59	-27.36	-11.44	-3.71	4.69	19.95	43.62	67.29	82.55	90.95	98.68	114.62
60	-28.92	-12.52	-4.57	4.07	19.77	44.11	68.45	84.15	92.80	100.74	117.14
61	-31.47	-14.91	-6.89	1.84	17.69	42.27	66.85	82.70	91.43	99.45	116.01
62	-33.10	-16.58	-8.59	.12	15.92	40.43	64.94	80.75	89.45	97.45	113.96
63	-34.47	-18.06	-10.11	-1.47	14.24	38.59	62.95	78.66	87.30	95.25	111.66
64	-35.13	-19.76	-11.84	-3.21	12.46	36.76	61.05	76.72	85.35	93.28	109.65
65	-37.82	-21.48	-13.57	-4.96	10.68	34.93	59.17	74.81	83.42	91.33	107.67
66	-39.52	-23.21	-15.32	-6.72	8.89	33.09	57.29	72.90	81.49	89.39	105.69
67	-41.24	-24.96	-17.08	-8.50	7.09	31.25	55.41	71.00	79.58	87.46	103.74
68	-42.78	-26.51	-18.67	-10.13	5.37	29.40	53.43	68.93	77.47	85.31	101.50
69	-44.45	-28.27	-20.44	-11.92	3.57	27.57	51.58	67.06	75.59	83.42	99.59
70	-46.22	-30.06	-22.23	-13.72	1.75	25.73	49.72	65.19	73.70	81.53	97.69

TABLE 12.2. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

FEBRUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.69	-8.19	-6.98	-5.66	-3.26	-4.6	4.18	6.57	7.89	9.11	11.61
1	-18.98	-14.06	-11.63	-9.09	-4.38	7.92	10.22	14.92	17.52	19.90	24.81
2	-16.21	-10.95	-8.40	-5.63	-6.0	10.71	15.01	20.05	22.82	25.37	30.63
3	-14.22	-8.61	-5.89	-2.93	2.45	7.29	13.12	24.50	27.46	30.18	35.79
4	-14.29	-8.01	-4.97	-1.67	4.34	13.65	22.96	38.96	32.27	35.31	41.58
5	-13.88	-6.96	-3.61	.04	6.65	16.93	27.21	33.83	37.48	40.83	47.75
6	-12.40	-5.01	-1.43	2.47	9.55	20.52	31.50	38.58	42.47	46.05	53.45
7	-12.37	-4.22	-.27	4.02	11.82	24.91	36.01	43.41	48.10	52.05	60.19
8	-12.96	-3.91	.48	5.25	13.92	27.36	40.81	49.48	54.25	58.64	67.69
9	-13.87	-3.79	1.10	6.41	15.07	31.04	46.01	55.66	60.98	65.86	75.95
10	-13.03	-2.38	2.78	8.39	16.59	34.40	50.21	60.41	66.02	71.18	81.84
11	-11.40	-.33	5.03	10.86	21.46	37.88	54.31	64.91	70.74	76.10	87.17
12	-7.45	3.30	8.51	14.18	24.48	40.44	56.41	66.70	72.37	77.58	88.33
13	-2.74	6.99	11.70	16.83	27.14	40.58	55.02	64.33	69.46	74.17	83.90
14	.37	8.77	12.84	17.26	29.30	37.76	50.23	58.27	62.69	66.76	75.15
15	.09	7.58	11.20	15.15	22.31	34.42	44.53	51.70	55.64	59.27	66.75
16	-.92	5.75	8.99	12.51	18.90	28.81	38.71	45.10	48.82	51.86	58.53
17	-3.50	2.53	5.46	3.64	14.41	23.77	32.32	38.10	41.28	44.20	50.23
18	-6.62	-1.21	1.41	4.26	9.47	17.46	25.49	30.66	33.51	36.13	41.54
19	-10.54	-5.55	-3.13	-.50	4.28	11.69	13.11	23.49	26.52	29.44	33.93
20	-14.12	-9.44	-7.18	-4.72	-.25	6.69	13.63	18.10	20.56	22.83	27.50
21	-15.28	-10.98	-8.89	-6.63	-2.51	3.88	10.27	14.39	16.67	18.74	23.04
22	-17.59	-13.08	-10.89	-8.52	-4.70	2.49	9.15	13.70	15.88	18.06	22.57
23	-18.02	-13.60	-11.45	-9.12	-4.98	1.69	8.25	12.50	14.83	16.97	21.40
24	-18.63	-14.05	-11.83	-9.42	-5.04	1.76	8.56	12.95	15.36	17.58	22.16
25	-20.30	-15.30	-12.89	-10.24	-5.46	1.96	9.38	14.16	16.80	19.22	24.21
26	-21.84	-16.37	-13.73	-10.85	-5.61	2.50	10.62	15.85	18.73	21.38	26.84
27	-24.32	-18.19	-15.22	-11.99	-6.12	7.98	12.08	17.95	21.18	24.15	30.28
28	-19.61	-13.70	-10.88	-7.73	-2.07	6.70	15.46	21.12	24.23	27.09	33.00
29	-18.81	-12.68	-9.71	-6.48	-.62	8.48	17.58	23.44	26.67	29.64	35.77
30	-18.44	-11.83	-8.62	-5.14	1.19	11.01	20.83	27.16	30.64	33.85	40.46
31	-17.10	-10.20	-6.86	-3.23	3.38	13.62	23.86	30.46	34.10	37.44	44.34
32	-18.44	-10.75	-7.03	-2.98	4.37	15.78	27.18	34.54	38.59	42.31	50.00
33	-19.53	-11.13	-7.07	-2.65	5.39	17.84	30.30	38.33	42.75	46.82	55.21
34	-19.47	-10.82	-6.63	-2.08	6.20	19.03	31.86	40.14	44.70	48.88	57.53
35	-18.15	-9.70	-5.60	-1.14	6.95	19.50	32.06	40.15	44.61	48.71	57.16
36	-19.85	-10.80	-6.41	-1.63	7.04	20.48	33.93	42.60	47.38	51.76	60.82
37	-22.06	-12.33	-7.62	-2.50	6.81	21.24	35.67	44.98	50.10	54.81	64.54
38	-23.48	-13.16	-8.16	-2.72	7.17	22.49	37.81	47.69	53.13	58.13	68.46
39	-24.41	-13.68	-8.47	-2.81	7.47	23.41	39.35	49.63	55.29	60.49	71.23
40	-26.09	-14.82	-9.37	-3.43	7.35	24.07	40.79	51.58	57.52	62.97	74.28
41	-27.72	-15.84	-10.08	-3.82	7.55	25.18	42.82	54.19	60.45	66.20	78.08
42	-25.25	-13.64	-8.01	-1.89	9.22	26.46	43.70	54.82	60.94	66.57	78.18
43	-22.83	-11.45	-5.95	.05	10.93	27.81	44.69	55.58	61.57	67.08	78.45
44	-23.07	-11.34	-5.66	.52	11.74	29.15	46.56	57.78	63.96	69.64	81.37
45	-24.02	-11.84	-5.93	.49	12.16	30.25	48.34	60.01	66.43	72.33	84.52
46	-23.11	-10.85	-4.91	1.56	13.30	31.50	49.71	61.44	67.31	73.85	86.11
47	-21.28	-9.17	-3.30	3.08	14.67	32.64	50.61	62.20	68.58	74.45	86.56
48	-18.78	-6.88	-1.11	5.16	16.56	34.23	51.90	63.29	69.57	75.33	87.24
49	-16.58	-4.61	1.19	7.50	18.95	36.72	54.48	65.94	72.25	78.05	90.02
50	-16.36	-4.29	1.56	7.92	19.47	37.39	55.30	66.85	73.21	79.06	91.13
51	-14.85	-2.87	2.93	9.24	20.70	38.48	56.25	67.71	74.03	79.83	91.80
52	-14.53	-2.10	3.92	10.47	22.37	40.81	59.26	71.16	77.71	83.73	96.15
53	-18.90	1.39	7.35	13.83	25.60	43.85	62.10	73.87	80.35	86.31	98.61
54	-7.10	4.88	10.68	17.00	28.47	46.26	64.05	75.52	81.83	87.64	99.62
55	-2.80	8.62	14.16	20.18	31.11	48.07	65.03	75.96	81.98	87.51	98.99
56	-1.82	9.81	15.44	21.57	32.71	49.97	67.24	78.37	84.50	90.13	101.76
57	-.31	11.06	16.86	23.17	34.64	52.41	70.18	81.65	87.96	93.76	105.73
58	-.95	11.00	16.78	23.07	34.50	52.23	69.95	81.38	87.67	93.46	105.40
59	-11.41	3.47	10.69	18.53	32.78	54.88	76.98	91.23	99.08	106.29	121.18
60	-19.24	-2.09	6.21	15.25	31.66	57.11	82.56	98.98	108.01	116.32	133.47
61	-15.83	.14	7.87	16.29	31.58	55.28	78.99	94.27	102.69	110.42	126.39
62	-15.92	-.34	7.20	15.41	30.32	53.44	76.56	91.47	99.68	107.23	122.80
63	-16.29	-1.05	6.34	14.38	28.98	51.61	74.25	88.84	96.88	104.27	119.52
64	-16.38	-1.53	5.67	13.50	27.72	49.77	71.82	86.04	93.87	101.06	115.92
65	-16.48	-2.01	4.99	12.62	26.47	47.94	69.41	83.25	90.88	97.88	112.35
66	-16.57	-2.49	4.32	11.74	25.22	46.11	67.00	80.47	87.89	94.70	108.78
67	-16.66	-2.97	3.65	10.86	23.96	44.26	64.57	77.67	84.88	91.50	105.18
68	-17.03	-3.68	2.79	9.83	22.61	42.43	62.25	75.04	82.08	88.54	101.98
69	-17.12	-4.16	2.12	8.95	21.35	40.59	59.83	72.24	79.07	85.35	98.31
70	-17.22	-4.64	1.44	8.07	20.10	38.76	57.42	69.45	76.08	82.17	94.74

TABLE 12.3. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

MARCH

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.37	-8.02	-6.89	-5.65	-4.41	.07	3.55	5.72	7.03	8.16	10.51
1	-17.73	-13.15	-10.93	-8.52	-6.13	2.67	9.47	13.86	16.27	18.49	23.07
2	-14.05	-9.40	-7.15	-4.69	-2.24	6.67	13.57	18.07	20.49	22.73	27.32
3	-11.22	-8.00	-5.47	-2.72	2.27	10.02	17.75	22.76	25.51	28.03	33.25
4	-12.72	-6.85	-4.01	-.82	4.70	13.41	22.12	27.74	30.94	33.68	39.55
5	-11.18	-4.83	-1.75	1.53	7.67	17.09	26.52	32.59	35.34	38.01	45.36
6	-9.11	-2.42	.82	4.35	10.76	20.69	30.63	37.02	40.50	43.87	52.57
7	-8.21	-.92	2.61	6.45	13.43	24.24	35.06	42.04	45.83	49.41	58.70
8	-7.58	.33	4.16	8.33	15.91	27.66	39.40	46.98	51.15	54.98	64.89
9	-8.10	.77	5.07	9.75	18.24	31.41	44.58	53.08	57.75	62.05	72.93
10	-9.02	.90	5.70	10.93	20.42	35.14	49.86	59.35	64.58	69.38	79.30
11	-7.51	2.87	7.89	13.36	23.29	38.69	54.09	64.02	69.49	74.52	84.89
12	-5.98	7.02	11.87	17.13	26.71	41.55	56.39	65.97	71.24	76.08	86.00
13	2.04	10.95	15.20	17.95	28.44	41.70	54.92	63.44	69.14	72.45	81.36
14	2.88	10.92	14.81	17.05	26.75	38.69	50.63	58.73	62.57	66.46	74.51
15	2.61	9.65	13.05	16.77	23.51	33.96	44.41	51.15	54.36	58.26	65.37
16	1.06	7.31	10.34	13.67	19.61	28.88	38.15	44.14	47.43	50.45	57.70
17	-2.16	3.53	6.29	9.29	14.74	27.13	31.64	37.09	40.29	42.85	49.54
18	-6.18	-1.00	1.51	4.24	9.21	16.90	24.59	29.55	32.29	34.80	39.99
19	-10.15	-5.50	-3.25	-.80	3.55	10.55	17.46	21.91	24.35	26.61	31.20
20	-13.33	-8.98	-6.88	-4.59	-.43	6.03	12.48	16.64	18.93	21.04	25.39
21	-15.06	-11.00	-9.04	-6.89	-3.01	3.02	9.05	12.94	15.03	17.05	21.11
22	-17.17	-13.00	-10.98	-8.75	-4.80	1.38	7.56	11.55	13.74	15.76	19.93
23	-18.32	-14.20	-12.21	-10.04	-6.09	.02	6.14	10.08	12.25	14.25	18.37
24	-19.33	-15.04	-12.96	-10.70	-6.59	-.22	6.16	10.27	12.53	14.61	18.90
25	-21.13	-16.33	-14.01	-11.48	-6.88	.24	7.37	11.36	14.49	16.82	21.62
26	-22.20	-16.96	-14.43	-11.67	-6.66	1.12	8.89	13.90	16.68	19.19	24.43
27	-25.03	-19.07	-16.11	-13.04	-7.34	1.51	10.35	16.06	19.20	22.02	29.24
28	-18.98	-13.48	-11.03	-8.36	-3.51	4.01	11.53	16.37	19.04	21.50	26.56
29	-18.73	-13.18	-10.51	-7.59	-2.28	5.94	14.17	19.47	22.39	25.08	30.62
30	-20.02	-13.78	-10.77	-7.48	-1.52	7.73	16.98	22.95	26.23	29.25	35.48
31	-22.04	-14.90	-11.44	-7.68	-.85	9.75	20.35	27.18	30.95	34.41	41.54
32	-24.09	-16.11	-12.25	-8.04	-.40	11.45	23.29	30.93	35.14	39.00	46.98
33	-27.21	-18.32	-14.02	-9.33	-.82	12.37	25.66	34.07	38.75	43.06	51.94
34	-23.63	-20.04	-15.40	-10.35	-1.17	13.07	27.30	36.48	41.53	46.18	55.76
35	-28.32	-19.08	-14.49	-9.58	-.65	13.18	27.01	35.94	40.85	45.36	54.68
36	-26.81	-18.00	-13.69	-8.99	-.47	12.75	25.98	34.50	39.20	43.51	52.42
37	-24.81	-16.32	-12.20	-7.73	.40	13.00	25.60	33.73	38.21	42.32	50.81
38	-23.89	-15.66	-11.22	-6.72	1.45	14.12	26.79	34.97	39.47	43.60	52.14
39	-23.52	-14.80	-10.58	-5.98	2.37	15.32	28.26	36.61	41.21	45.44	54.16
40	-22.05	-13.42	-9.24	-4.69	3.57	16.38	29.18	37.44	41.99	46.17	54.80
41	-22.82	-13.83	-8.47	-4.73	3.88	17.22	30.57	39.18	43.92	48.28	57.27
42	-22.34	-13.29	-8.30	-4.13	4.54	17.98	31.43	40.09	44.87	49.25	58.31
43	-21.04	-12.11	-7.79	-3.08	5.46	18.71	31.96	40.51	45.21	49.53	58.46
44	-21.05	-11.90	-7.46	-2.64	6.13	19.72	33.31	42.07	46.90	51.33	60.49
45	-20.17	-11.00	-6.56	-1.73	7.04	20.64	34.24	43.02	47.85	52.28	61.45
46	-17.51	-8.64	-4.34	-.34	8.83	22.01	35.18	43.68	48.36	52.65	61.53
47	-15.86	-7.11	-2.87	1.75	10.13	23.12	36.12	44.50	49.11	53.35	62.11
48	-13.40	-4.75	-.56	4.00	12.29	25.13	37.97	46.26	50.82	55.01	63.66
49	-10.54	-2.10	1.98	6.43	14.50	27.02	39.55	47.62	52.07	56.15	64.59
50	-9.51	-.93	3.23	7.76	15.98	28.72	41.46	49.68	54.21	58.37	66.95
51	-6.77	1.65	5.78	10.17	18.23	30.73	43.23	51.29	55.73	59.81	68.23
52	-2.66	5.25	9.08	13.25	20.82	32.56	44.30	51.87	56.04	59.87	67.78
53	-2.46	5.75	9.73	14.06	21.92	34.10	46.29	54.15	58.47	62.45	70.66
54	-1.90	6.41	10.44	14.82	22.77	35.11	47.45	55.41	59.79	63.82	72.13
55	-5.67	3.73	8.29	13.25	22.25	36.22	50.18	59.19	64.14	68.70	78.11
56	-4.84	4.57	9.13	14.09	23.10	37.06	51.03	60.03	64.99	69.55	78.96
57	-5.27	4.92	9.21	14.22	23.50	37.89	52.27	61.55	66.66	71.35	81.04
58	-8.32	2.38	7.57	13.21	23.46	39.36	55.25	65.50	71.15	76.34	87.04
59	-10.05	1.20	6.65	12.58	23.35	40.05	56.75	67.52	73.45	78.90	90.16
60	-14.96	-2.60	3.39	9.91	21.75	40.10	58.45	70.29	76.81	82.79	95.16
61	-11.98	-.67	4.81	10.77	21.60	38.40	55.19	66.02	71.98	77.46	88.77
62	-12.53	-1.48	3.87	9.70	20.28	36.69	53.10	63.68	69.50	74.86	85.91
63	-13.10	-2.31	2.92	8.62	18.95	34.98	51.01	61.35	67.04	72.27	83.07
64	-13.66	-3.12	1.99	7.54	17.63	33.27	48.92	59.01	64.56	69.67	80.21
65	-14.21	-3.93	1.05	6.46	16.31	31.57	46.83	56.67	62.09	67.06	77.35
66	-14.77	-4.75	.11	5.39	14.98	29.86	44.73	54.33	59.61	64.46	74.48
67	-15.32	-5.56	-.83	4.31	13.66	28.15	42.64	51.99	57.14	61.86	71.63
68	-15.90	-6.39	-1.78	3.23	12.33	26.44	40.56	49.66	54.67	59.27	68.78
69	-16.45	-7.20	-2.72	2.15	11.01	24.74	38.47	47.32	52.20	56.68	65.93
70	-17.01	-8.02	-3.67	1.07	9.68	23.03	36.37	44.96	49.72	54.08	63.07

TABLE 12.4. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS

105 DEGREE FLIGHT AZIMUTH

APRIL

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-11.57	-9.23	-8.10	-6.87	-4.63	-1.15	2.32	4.56	5.79	6.83	9.27
1	-19.63	-15.10	-12.91	-10.52	-6.18	-1.55	7.29	11.62	14.00	16.20	20.73
2	-17.97	-13.19	-10.88	-8.36	-3.79	3.29	10.38	14.95	17.46	19.78	24.55
3	-18.41	-12.96	-10.31	-7.44	-2.21	5.89	13.99	19.22	22.09	24.74	30.19
4	-18.01	-12.07	-9.19	-6.06	-1.38	8.44	17.26	22.95	26.08	28.95	34.89
5	-18.31	-11.72	-8.54	-5.07	1.23	11.00	20.77	27.07	30.53	33.72	40.30
6	-18.72	-11.44	-7.91	-4.07	2.90	13.71	24.52	31.49	35.35	38.66	46.15
7	-18.82	-10.87	-7.02	-2.83	4.77	16.57	28.37	35.94	40.16	44.01	51.96
8	-19.16	-10.47	-6.28	-1.67	6.66	19.57	32.47	40.80	45.38	49.60	58.29
9	-21.30	-11.51	-6.77	-1.51	7.76	22.29	35.82	46.19	51.35	56.10	65.89
10	-21.34	-10.86	-5.78	-1.26	9.77	25.33	40.89	50.92	56.44	61.52	72.00
11	-21.79	-10.46	-4.97	1.00	11.85	28.67	45.48	56.33	62.30	67.79	79.12
12	-19.78	-8.19	-2.57	3.54	14.64	31.85	49.07	60.17	66.29	71.90	83.48
13	-14.90	-3.97	1.33	7.09	17.56	33.79	50.02	60.49	66.25	71.55	82.48
14	-10.35	-1.86	3.74	8.74	17.83	33.92	46.00	55.09	60.09	64.69	74.18
15	-7.57	-1.40	4.27	8.47	16.11	27.95	39.79	47.43	51.64	55.50	63.48
16	-7.60	-1.74	2.59	6.21	12.78	22.97	33.15	39.73	43.34	46.67	53.53
17	-9.77	-3.68	-1.73	2.48	8.31	17.35	26.39	32.22	35.43	38.38	44.47
18	-11.81	-6.65	-4.16	-1.44	3.49	11.14	18.79	23.72	26.44	28.93	34.09
19	-15.15	-10.50	-8.25	-5.81	-1.36	5.53	12.43	16.87	19.32	21.57	26.21
20	-15.99	-11.96	-10.01	-7.88	-4.02	1.96	7.95	11.80	13.93	15.88	19.91
21	-15.79	-12.31	-10.63	-8.80	-5.47	-1.30	4.86	8.13	10.02	11.70	15.18
22	-16.27	-13.02	-11.45	-9.74	-6.63	-1.82	3.00	6.11	7.82	9.39	12.64
23	-17.20	-13.90	-12.31	-10.57	-7.41	-2.52	2.37	5.33	7.27	8.96	12.16
24	-18.00	-14.53	-12.85	-11.03	-7.71	-2.57	2.57	5.89	7.71	9.39	12.86
25	-19.13	-15.34	-13.50	-11.51	-7.88	-2.26	3.36	6.98	8.98	10.81	14.60
26	-21.36	-17.15	-15.02	-12.89	-8.47	-1.93	4.61	8.83	11.15	13.28	17.69
27	-22.25	-17.49	-15.18	-12.67	-8.11	-1.04	6.02	10.58	13.09	15.40	20.18
28	-23.47	-18.39	-16.04	-13.35	-8.39	-0.83	6.71	11.58	14.26	16.72	21.41
29	-24.12	-18.68	-16.04	-13.17	-7.95	-1.13	8.21	13.42	16.30	18.54	24.38
30	-24.31	-18.54	-15.74	-12.70	-7.41	1.33	9.96	15.43	18.53	21.32	27.03
31	-24.67	-18.06	-15.17	-12.03	-6.32	7.54	11.40	17.11	20.25	23.14	29.11
32	-25.69	-17.60	-14.65	-11.45	-5.63	3.40	12.43	18.25	21.45	24.40	30.43
33	-25.36	-16.43	-13.55	-10.42	-4.73	4.08	12.90	18.58	21.71	24.59	30.53
34	-22.37	-16.53	-13.55	-10.24	-4.27	5.03	14.40	20.41	23.72	26.75	33.03
35	-24.74	-17.95	-14.72	-11.16	-4.70	5.32	15.31	21.81	25.77	28.64	35.39
36	-23.96	-17.34	-14.13	-10.65	-4.31	5.51	15.33	21.67	25.15	28.35	34.99
37	-20.62	-14.76	-11.92	-10.65	-3.23	5.47	14.16	19.77	22.86	25.70	31.55
38	-20.71	-14.79	-11.92	-10.60	-3.13	5.67	14.46	20.13	23.25	26.12	32.05
39	-22.62	-16.47	-13.40	-10.24	-4.35	4.78	13.92	19.81	23.05	26.02	32.19
40	-24.32	-17.64	-14.41	-10.93	-4.50	5.41	15.32	21.71	25.23	28.46	35.14
41	-24.53	-17.78	-14.51	-10.95	-4.49	5.52	15.54	22.00	25.55	28.82	35.57
42	-26.82	-19.68	-16.22	-12.45	-5.61	4.99	15.60	22.43	26.20	29.66	36.80
43	-29.10	-21.52	-17.65	-13.85	-6.59	4.66	15.92	23.17	27.17	30.84	38.42
44	-30.02	-22.23	-18.46	-14.35	-6.90	4.67	16.23	23.69	27.80	31.57	39.37
45	-32.00	-23.74	-19.74	-15.76	-7.47	4.75	17.05	24.96	29.32	33.32	41.54
46	-34.24	-25.25	-20.30	-16.16	-7.50	5.73	19.13	27.74	32.48	35.83	45.87
47	-34.86	-25.45	-20.86	-16.33	-6.92	7.05	21.07	30.03	35.00	39.55	48.97
48	-34.23	-24.72	-20.11	-15.10	-5.93	8.13	22.26	31.37	36.38	40.77	50.50
49	-35.65	-25.67	-20.84	-15.58	-6.02	8.78	23.59	33.15	38.41	43.24	53.22
50	-37.54	-27.15	-22.11	-16.64	-6.59	8.74	24.16	34.11	39.59	44.62	55.01
51	-39.26	-28.45	-23.01	-17.51	-7.16	9.90	24.95	35.31	41.01	46.25	57.06
52	-39.02	-29.24	-23.81	-17.37	-7.01	9.00	25.00	35.32	41.01	46.23	57.01
53	-36.98	-26.49	-21.41	-15.88	-5.85	9.72	25.29	35.32	40.85	45.92	56.47
54	-34.50	-24.27	-19.32	-13.93	-4.13	11.05	26.23	36.03	41.42	46.17	56.60
55	-35.28	-24.53	-19.33	-13.66	-3.37	12.59	28.54	38.83	44.50	49.71	60.46
56	-32.40	-22.03	-17.00	-11.54	-1.61	13.73	29.13	39.10	44.57	49.59	59.96
57	-30.34	-20.24	-15.35	-10.07	-1.27	14.62	29.60	39.27	44.59	49.48	59.57
58	-33.70	-22.54	-17.14	-11.26	-1.59	15.98	32.54	43.22	49.10	54.50	65.61
59	-31.62	-21.39	-16.48	-11.14	-1.44	17.59	38.63	48.23	53.65	58.70	70.70
60	-34.57	-23.55	-18.21	-12.41	-1.36	14.49	30.84	41.39	47.20	52.52	63.55
61	-35.71	-24.53	-19.11	-13.22	-2.52	14.08	30.67	41.78	47.27	52.69	63.87
62	-35.40	-24.69	-19.31	-13.45	-2.92	13.67	30.16	40.30	46.65	52.07	63.14
63	-35.62	-24.84	-19.32	-13.54	-3.04	13.25	29.54	40.05	46.83	51.15	62.13
64	-35.71	-24.90	-19.52	-13.73	-3.34	12.43	29.03	39.47	46.22	50.50	61.40
65	-36.10	-25.20	-19.93	-14.10	-3.75	12.43	28.61	39.04	44.78	50.06	60.96
66	-35.32	-25.16	-19.95	-14.27	-3.97	12.01	27.99	38.30	43.37	49.19	59.95
67	-36.01	-25.72	-20.14	-14.50	-4.27	11.61	27.48	37.72	43.35	48.53	59.23
68	-36.13	-25.50	-20.35	-14.75	-4.58	11.19	26.96	37.13	42.73	47.88	58.50
69	-36.22	-25.66	-20.55	-14.99	-4.88	10.78	26.45	36.55	42.11	47.22	57.78
70	-36.33	-25.94	-20.75	-15.24	-5.20	10.36	25.93	35.97	41.49	46.57	57.06

TABLE 12.5. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

MAY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.67	-8.66	-7.67	-6.53	-4.71	-1.72	1.26	3.18	4.24	5.22	7.23
1	-16.00	-12.61	-10.97	-9.19	-4.94	-0.92	4.11	7.35	8.33	10.77	14.16
2	-15.00	-11.49	-9.79	-7.95	-4.59	.62	5.82	7.18	11.03	12.73	16.24
3	-14.93	-11.20	-9.40	-7.42	-3.86	1.67	7.21	10.76	12.75	14.55	18.24
4	-15.33	-11.26	-9.23	-7.14	-3.24	2.80	8.84	12.74	14.29	16.85	20.97
5	-15.05	-10.72	-8.62	-6.34	-2.19	4.24	10.67	14.81	17.10	19.20	23.53
6	-15.22	-10.53	-8.25	-5.73	-1.20	5.69	12.65	17.15	19.07	21.70	26.60
7	-16.80	-11.41	-8.75	-5.95	-0.75	7.23	15.25	20.42	22.10	25.68	31.27
8	-16.37	-10.75	-8.02	-5.06	.32	8.68	17.03	22.42	25.33	29.11	37.73
9	-17.12	-10.97	-7.30	-4.74	1.15	10.28	19.42	25.31	28.55	31.52	37.68
10	-13.04	-12.05	-9.00	-4.93	1.71	12.09	22.46	29.16	32.34	36.23	43.22
11	-19.72	-12.06	-8.35	-4.32	2.02	14.79	25.76	33.09	37.12	40.84	48.50
12	-20.40	-12.06	-8.02	-3.62	4.36	16.74	29.12	37.11	41.70	45.54	53.83
13	-18.99	-10.44	-6.30	-1.80	6.30	19.00	31.75	39.93	44.43	48.57	57.11
14	-14.06	-6.64	-3.05	.35	7.95	21.96	39.06	47.06	48.07	44.55	51.97
15	-10.38	-4.40	-1.50	1.65	7.37	16.25	35.12	50.25	54.00	56.99	42.97
16	-10.29	-5.13	-2.72	.04	4.83	12.38	33.34	24.81	37.43	39.05	35.04
17	-10.85	-6.63	-4.53	-2.35	1.70	7.97	14.24	18.29	26.52	22.56	26.75
18	-12.55	-8.91	-7.14	-5.22	-1.73	3.63	3.09	12.53	18.70	16.27	19.31
19	-13.65	-10.55	-9.05	-7.41	-4.44	.16	4.77	7.74	9.37	10.86	17.98
20	-14.87	-12.02	-10.64	-9.13	-6.40	-2.17	2.06	4.77	6.30	7.83	12.53
21	-16.52	-13.72	-12.37	-10.90	-8.22	-4.67	.08	2.76	4.23	5.59	8.38
22	-17.99	-15.13	-13.75	-12.24	-9.50	-5.25	-1.01	1.73	3.24	4.62	7.49
23	-18.81	-15.95	-14.57	-12.07	-10.32	-5.10	-1.86	.87	2.58	3.76	6.61
24	-20.24	-17.17	-15.69	-14.07	-11.14	-6.59	-2.04	.90	2.52	4.00	7.07
25	-21.68	-18.32	-16.69	-14.92	-11.70	-6.71	-1.72	1.50	3.27	4.90	9.26
26	-22.94	-19.30	-17.54	-15.73	-12.15	-6.76	-1.36	2.12	4.27	5.79	9.42
27	-24.13	-20.17	-18.25	-16.15	-12.36	-6.47	-.58	2.21	5.21	7.23	11.10
28	-27.45	-22.81	-20.56	-18.12	-13.68	-5.79	.09	4.53	6.98	9.23	13.86
29	-28.78	-23.72	-21.27	-18.59	-13.74	-6.21	1.32	6.17	8.84	11.30	16.37
30	-30.17	-24.74	-22.12	-19.26	-14.07	-6.02	2.03	7.23	10.08	12.71	18.13
31	-29.57	-24.05	-21.37	-18.46	-13.17	-4.97	3.23	8.52	11.44	14.11	19.64
32	-28.63	-23.17	-20.52	-17.64	-12.40	-4.29	3.83	9.06	11.94	14.59	20.05
33	-27.35	-22.07	-19.52	-16.74	-11.68	-3.85	3.99	9.04	11.82	14.38	19.66
34	-26.82	-23.16	-20.43	-17.44	-12.03	-3.64	4.76	10.17	13.15	15.49	21.55
35	-30.00	-24.17	-21.35	-18.28	-12.70	-4.06	4.59	10.17	13.24	16.06	21.68
36	-31.71	-25.68	-22.76	-19.59	-13.82	-4.87	4.08	9.85	13.02	15.94	21.97
37	-33.37	-27.23	-24.26	-21.03	-15.15	-6.05	3.06	8.94	12.17	15.14	21.28
38	-32.17	-26.42	-23.64	-20.61	-15.11	-5.57	1.96	7.46	10.49	13.28	19.03
39	-32.06	-26.55	-23.87	-20.97	-15.69	-7.50	.69	5.97	8.88	11.55	17.07
40	-32.09	-26.86	-24.32	-21.56	-16.55	-8.78	-1.01	4.00	6.76	9.29	14.52
41	-33.03	-27.95	-25.49	-22.81	-17.95	-10.41	-2.86	2.00	4.68	7.14	12.22
42	-35.71	-30.33	-27.73	-24.85	-19.74	-11.76	-3.78	1.37	4.20	6.81	12.14
43	-37.31	-31.85	-29.21	-26.33	-21.11	-13.00	-4.90	.33	3.21	5.85	11.31
44	-40.53	-34.58	-31.70	-28.56	-22.86	-14.03	-5.19	.50	3.64	6.52	12.47
45	-42.14	-35.98	-32.99	-29.75	-23.85	-14.70	-5.56	.34	3.59	6.57	12.73
46	-44.04	-37.65	-34.56	-31.19	-25.07	-15.58	-6.10	.02	3.39	6.48	12.87
47	-44.50	-38.22	-35.18	-31.87	-25.86	-16.54	-7.22	-1.20	2.11	5.15	11.43
48	-44.66	-38.50	-35.51	-32.27	-26.37	-17.22	-8.07	-2.18	1.07	4.06	10.22
49	-46.69	-40.37	-37.31	-33.98	-27.93	-18.54	-9.16	-3.11	.22	3.28	9.60
50	-48.72	-42.32	-39.23	-35.85	-29.73	-20.24	-10.74	-4.62	-1.25	1.85	8.25
51	-51.22	-44.29	-40.98	-37.27	-30.64	-20.35	-10.06	-3.42	.23	3.59	10.52
52	-54.49	-47.10	-43.33	-39.23	-31.78	-20.23	-8.68	-1.22	2.88	6.65	14.43
53	-54.83	-47.15	-43.43	-39.38	-32.03	-20.62	-9.22	-1.87	2.18	5.90	13.58
54	-53.09	-45.79	-42.25	-38.41	-31.42	-20.58	-9.74	-2.75	1.10	4.64	11.94
55	-53.86	-46.38	-42.76	-38.83	-31.67	-20.58	-9.49	-2.33	1.61	5.23	12.70
56	-56.77	-48.63	-44.69	-40.40	-32.61	-20.53	-8.45	-.66	3.63	7.57	15.71
57	-59.10	-50.37	-46.15	-41.55	-33.20	-20.25	-7.29	1.06	5.66	9.88	18.61
58	-60.48	-51.88	-47.15	-42.74	-34.00	-21.26	-5.53	4.62	10.21	15.35	25.95
59	-62.34	-52.74	-48.08	-43.02	-33.83	-19.58	-5.32	3.87	8.93	13.58	23.19
60	-74.20	-61.40	-55.80	-49.27	-37.40	-19.01	-.61	11.25	17.78	23.78	36.18
61	-72.33	-60.24	-54.38	-48.00	-36.42	-18.46	-.51	11.07	17.45	23.31	35.41
62	-68.82	-57.38	-51.85	-45.82	-34.88	-17.91	-.94	10.00	16.03	21.57	33.00
63	-65.32	-54.95	-49.34	-43.66	-33.35	-17.36	-1.38	8.93	14.61	19.83	30.60
64	-61.53	-51.49	-46.63	-41.33	-31.72	-16.82	-1.91	7.70	12.99	17.85	27.89
65	-58.04	-48.66	-44.12	-39.17	-30.20	-16.27	-2.35	6.62	11.57	16.11	25.49
66	-54.52	-45.81	-41.59	-37.00	-28.66	-15.72	-2.79	5.55	10.15	14.37	23.08
67	-50.73	-42.75	-38.88	-34.67	-27.03	-15.18	-3.32	4.32	8.53	12.39	20.38
68	-47.24	-39.32	-36.37	-32.51	-25.50	-14.63	-3.76	3.25	7.11	10.66	17.98
69	-43.45	-36.85	-33.66	-30.18	-23.87	-14.08	-4.28	2.03	5.51	8.70	15.30
70	-39.95	-34.01	-31.14	-28.02	-22.34	-13.53	-4.73	.95	4.08	6.95	12.88

TABLE 12.6. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS

105 DEGREE FLIGHT AZIMUTH

JUNE

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.39	-7.58	-6.70	-5.74	-4.01	-1.32	1.37	3.11	4.36	4.94	6.75
1	-14.23	-11.10	-9.50	-7.92	-4.02	-2.26	4.40	7.40	9.05	10.57	13.71
2	-12.96	-9.74	-8.27	-6.53	-3.50	1.03	5.66	8.65	10.29	11.82	14.92
3	-12.17	-9.07	-7.50	-5.75	-2.90	1.65	6.25	9.22	10.86	12.38	15.46
4	-12.21	-9.00	-7.44	-5.72	-2.67	2.10	6.37	9.35	11.64	13.20	16.42
5	-12.58	-9.21	-7.55	-5.80	-2.57	2.43	7.44	10.50	13.44	14.07	17.45
6	-13.30	-9.59	-7.93	-6.02	-2.50	2.81	8.17	11.64	13.54	15.23	18.91
7	-14.03	-10.58	-8.67	-6.46	-2.61	3.46	9.41	13.29	15.42	17.38	21.43
8	-16.17	-11.68	-9.51	-7.14	-2.92	3.81	10.47	14.77	17.13	19.31	23.80
9	-18.51	-13.32	-10.80	-8.07	-3.15	4.60	12.30	17.27	20.01	22.52	27.71
10	-21.63	-15.60	-12.64	-9.50	-3.72	5.23	14.13	19.96	23.14	26.06	32.00
11	-24.50	-17.64	-14.22	-10.72	-4.14	6.04	16.22	22.79	26.41	29.73	36.59
12	-27.22	-19.46	-15.70	-11.60	-4.17	7.36	18.93	25.32	30.41	34.17	41.94
13	-28.22	-19.99	-16.00	-11.65	-3.76	9.47	20.71	28.60	32.94	36.94	45.18
14	-28.23	-19.96	-16.15	-11.82	-3.49	7.89	19.26	26.60	30.64	34.35	42.01
15	-22.78	-16.38	-13.20	-9.91	-2.78	5.72	15.22	21.34	24.72	27.82	34.22
16	-19.36	-13.60	-11.41	-8.34	-4.45	2.44	9.44	13.92	16.38	18.65	23.33
17	-16.17	-12.68	-10.98	-8.14	-5.80	-0.62	4.66	7.90	9.74	11.44	14.93
18	-16.20	-13.73	-12.00	-10.54	-7.34	-3.67	5.1	3.21	4.67	6.05	8.87
19	-16.99	-14.60	-12.30	-10.10	-6.78	-6.17	-2.57	-2.5	1.03	2.21	4.64
20	-19.13	-16.70	-15.44	-14.18	-11.30	-3.11	-4.42	-2.04	-7.3	.48	2.96
21	-21.16	-18.56	-17.30	-15.92	-15.43	-9.57	-5.71	-3.21	-1.84	-5.8	2.02
22	-22.19	-19.65	-18.41	-17.00	-14.67	-10.31	-7.15	-4.72	-3.30	-2.16	.37
23	-23.58	-20.98	-19.72	-18.35	-15.87	-12.01	-8.15	-5.67	-4.30	-3.04	-4.44
24	-24.92	-22.31	-20.95	-19.41	-16.78	-12.71	-8.64	-6.01	-4.57	-3.24	-5.50
25	-26.56	-23.69	-22.16	-20.55	-17.74	-13.34	-8.93	-6.09	-4.52	-3.08	-6.11
26	-27.70	-24.95	-23.02	-21.25	-18.33	-13.65	-8.96	-5.94	-4.27	-2.75	-6.41
27	-29.14	-26.71	-24.05	-22.24	-18.96	-13.87	-8.78	-5.49	-3.68	-2.02	-6.41
28	-31.95	-28.04	-26.15	-24.09	-20.35	-14.54	-8.74	-5.00	-2.94	-1.05	-2.86
29	-31.47	-27.67	-25.83	-23.82	-20.18	-14.53	-8.88	-5.24	-3.24	-1.39	-2.41
30	-31.62	-27.85	-26.08	-24.04	-20.44	-14.85	-9.26	-5.66	-3.67	-1.85	-1.91
31	-33.11	-29.10	-27.16	-25.04	-21.21	-15.26	-9.30	-5.47	-3.35	-1.41	-2.60
32	-33.13	-29.08	-27.12	-25.09	-21.12	-15.11	-9.11	-5.23	-3.10	-1.14	-2.90
33	-34.12	-29.91	-27.87	-25.65	-21.62	-15.37	-9.12	-5.09	-2.88	-0.84	-3.37
34	-38.22	-33.29	-30.90	-28.31	-23.59	-16.27	-8.96	-4.24	-1.64	-0.75	-5.68
35	-37.93	-33.26	-30.97	-28.48	-23.36	-16.94	-9.92	-5.40	-2.91	-0.62	-4.11
36	-38.97	-34.38	-32.16	-29.75	-25.36	-18.56	-11.76	-7.37	-4.96	-2.74	-1.84
37	-39.77	-35.54	-33.40	-31.07	-26.84	-20.28	-13.71	-9.48	-7.15	-5.01	-1.54
38	-41.24	-36.79	-34.63	-32.29	-28.02	-21.42	-14.81	-10.55	-8.20	-6.05	-1.60
39	-42.73	-38.30	-36.16	-33.82	-29.58	-23.00	-16.43	-12.13	-9.85	-7.71	-3.28
40	-42.72	-38.59	-36.59	-34.41	-30.46	-24.34	-18.21	-14.26	-12.09	-10.09	-5.96
41	-45.11	-41.62	-39.45	-37.09	-32.80	-26.14	-19.48	-15.19	-12.83	-10.65	-6.17
42	-48.49	-43.87	-41.63	-39.19	-34.76	-27.90	-21.04	-16.61	-14.17	-11.93	-7.31
43	-50.87	-46.24	-44.00	-41.56	-37.14	-30.27	-23.41	-18.98	-16.54	-14.30	-9.67
44	-52.97	-48.40	-46.19	-43.79	-39.42	-32.64	-25.87	-21.50	-19.09	-16.88	-12.32
45	-55.05	-50.30	-48.01	-45.51	-40.97	-33.93	-26.89	-22.35	-19.85	-17.55	-12.61
46	-57.50	-52.54	-50.14	-47.53	-42.78	-35.42	-28.06	-23.31	-20.70	-18.30	-13.34
47	-60.79	-55.47	-52.90	-50.09	-45.00	-37.10	-29.20	-24.11	-21.30	-18.72	-13.40
48	-61.98	-56.80	-54.30	-51.57	-46.62	-38.94	-31.26	-26.31	-23.58	-21.07	-15.90
49	-66.74	-60.84	-57.98	-54.87	-49.23	-40.47	-31.71	-26.06	-22.95	-20.09	-14.19
50	-65.91	-60.02	-57.17	-54.06	-48.42	-39.68	-30.93	-25.29	-22.19	-19.33	-13.44
51	-70.09	-63.38	-60.13	-56.60	-50.18	-40.22	-30.26	-23.84	-20.31	-17.06	-10.35
52	-71.44	-64.36	-61.23	-57.60	-51.01	-40.80	-30.58	-23.99	-20.36	-17.03	-10.15
53	-75.29	-67.72	-64.05	-60.06	-52.81	-41.56	-30.32	-23.07	-19.08	-15.41	-7.84
54	-72.40	-65.60	-62.30	-58.71	-52.20	-42.10	-31.99	-25.48	-21.89	-18.59	-11.77
55	-73.48	-66.55	-63.19	-59.54	-52.91	-42.62	-32.34	-25.70	-22.05	-18.70	-11.77
56	-71.27	-64.97	-61.91	-58.59	-52.55	-43.19	-33.82	-27.78	-24.46	-21.41	-15.10
57	-77.68	-69.42	-65.42	-61.07	-53.16	-40.91	-28.65	-20.75	-16.40	-12.40	-4.14
58	-85.00	-75.13	-70.35	-65.14	-55.69	-41.03	-26.37	-16.92	-11.71	-6.93	2.95
59	-87.88	-77.31	-72.19	-66.62	-56.50	-40.81	-25.12	-15.00	-9.43	-4.31	6.26
60	-82.87	-73.87	-69.51	-64.76	-56.15	-42.79	-29.43	-20.81	-16.07	-11.71	-2.71
61	-81.25	-72.23	-67.85	-63.07	-54.41	-40.96	-27.52	-18.85	-14.08	-9.69	-6.44
62	-77.07	-68.55	-64.42	-59.93	-51.77	-39.12	-26.48	-18.32	-13.83	-9.70	-1.18
63	-72.84	-64.86	-60.99	-56.79	-49.14	-37.30	-25.45	-17.80	-13.60	-9.73	-1.78
64	-68.63	-61.10	-57.58	-53.65	-46.52	-35.46	-24.41	-17.28	-13.35	-9.75	-2.30
65	-64.42	-57.51	-54.36	-50.52	-43.90	-33.64	-23.37	-16.76	-13.11	-9.76	-2.85
66	-60.20	-53.83	-50.74	-47.37	-41.27	-31.80	-22.33	-16.22	-12.86	-9.77	-3.39
67	-55.99	-50.15	-47.32	-44.24	-38.64	-29.97	-21.29	-15.70	-12.62	-9.79	-3.94
68	-51.77	-46.46	-43.49	-41.10	-36.02	-28.14	-20.26	-15.18	-12.39	-9.82	-4.51
69	-47.55	-42.78	-40.47	-37.95	-33.38	-26.30	-19.22	-14.65	-12.13	-9.82	-5.05
70	-43.34	-39.10	-37.05	-34.82	-30.76	-24.47	-18.18	-14.12	-11.89	-9.84	-5.68

TABLE 12.7. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

JULY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.35	-5.70	-5.90	-5.03	-7.45	-1.01	1.44	3.02	3.33	4.68	8.37
1	-13.14	-10.15	-9.70	-7.13	-4.27	.17	4.61	7.47	6.05	10.55	13.49
2	-12.30	-9.35	-7.97	-6.37	-3.54	.34	5.22	8.04	6.00	11.03	13.97
3	-12.08	-9.12	-7.69	-6.10	-3.71	1.10	5.49	8.72	6.58	11.31	14.27
4	-12.60	-9.51	-8.02	-6.32	-3.44	1.14	5.71	8.67	10.22	11.79	14.97
5	-13.09	-9.92	-8.39	-6.72	-3.00	1.07	5.74	8.77	10.44	11.98	15.15
6	-13.78	-10.51	-8.93	-7.21	-2.60	.76	5.61	8.73	10.45	12.03	15.37
7	-14.36	-11.06	-9.47	-7.74	-2.23	.51	5.19	8.34	10.07	11.67	14.96
8	-15.61	-12.10	-10.46	-8.56	-1.70	.00	5.21	8.56	10.41	12.11	15.62
9	-16.20	-12.71	-11.07	-10.16	-1.24	-.40	5.57	8.70	11.47	12.40	17.40
10	-20.56	-16.09	-13.01	-11.56	-1.27	-.63	5.01	10.30	10.56	14.30	19.30
11	-23.81	-18.66	-16.17	-13.40	-.67	-.91	6.74	11.66	14.37	16.97	22.01
12	-27.40	-21.55	-19.72	-15.64	-1.07	-1.35	7.33	12.93	15.00	19.35	24.70
13	-25.90	-23.60	-20.57	-17.22	-1.22	-1.97	7.57	12.55	16.39	19.93	26.27
14	-26.39	-21.33	-18.71	-16.31	-1.27	-1.35	5.82	11.10	14.00	16.67	22.19
15	-21.53	-17.47	-15.50	-13.70	-1.47	-1.44	2.60	6.45	8.63	10.60	14.66
16	-17.41	-14.43	-12.08	-11.50	-1.72	-4.43	-.03	2.77	4.31	5.73	9.60
17	-15.85	-13.60	-12.45	-11.71	-1.65	-.65	-2.05	-.06	1.15	2.26	4.55
18	-16.62	-14.63	-12.67	-12.82	-1.77	-7.73	-4.33	-2.73	-1.30	-.77	1.06
19	-18.25	-16.40	-15.00	-14.53	-1.77	-10.00	-7.27	-5.00	-4.00	-3.60	-1.79
20	-22.63	-20.32	-19.30	-17.93	-1.78	-12.35	-3.93	-6.72	-4.39	-.79	-2.09
21	-25.39	-22.91	-21.71	-21.40	-1.67	-14.35	-10.66	-9.29	-6.00	-5.78	-3.30
22	-26.21	-23.17	-22.74	-21.50	-1.27	-15.30	-12.32	-10.03	-8.30	-7.72	-5.30
23	-27.11	-24.81	-23.70	-22.48	-2.28	-16.37	-13.45	-11.25	-10.03	-8.90	-6.60
24	-28.54	-26.15	-24.97	-23.74	-2.14	-17.91	-14.35	-12.08	-10.30	-9.67	-7.27
25	-30.10	-27.51	-26.20	-24.50	-2.43	-18.59	-14.75	-12.28	-10.00	-9.66	-7.78
26	-32.44	-29.45	-28.06	-26.43	-2.57	-19.13	-14.63	-11.93	-10.35	-9.30	-8.81
27	-33.81	-30.58	-29.02	-27.32	-2.43	-19.44	-14.65	-11.66	-9.86	-8.29	-9.26
28	-32.88	-29.60	-28.21	-26.69	-23.93	-19.66	-15.38	-12.62	-11.10	-9.71	-6.93
29	-34.20	-31.24	-29.81	-28.25	-25.42	-21.02	-16.63	-13.80	-12.24	-10.80	-7.84
30	-35.60	-32.53	-31.04	-29.42	-26.48	-21.92	-17.36	-14.42	-12.80	-11.31	-8.24
31	-36.50	-33.30	-31.75	-30.06	-26.99	-22.24	-17.49	-14.42	-12.73	-11.18	-7.98
32	-37.54	-34.25	-32.65	-30.92	-27.76	-22.88	-17.99	-14.84	-13.11	-11.51	-8.22
33	-39.08	-35.50	-33.77	-31.89	-28.46	-23.16	-17.85	-14.42	-12.54	-10.81	-7.23
34	-40.52	-36.79	-34.99	-33.03	-29.46	-23.93	-18.40	-14.83	-12.87	-11.06	-7.34
35	-43.61	-39.60	-37.66	-35.55	-31.71	-25.75	-19.80	-15.96	-13.85	-11.90	-7.89
36	-43.03	-39.39	-37.63	-35.71	-32.23	-26.63	-21.43	-17.95	-16.03	-14.27	-10.64
37	-43.29	-39.86	-38.20	-36.39	-33.10	-28.01	-22.91	-19.63	-17.82	-16.16	-12.73
38	-53.26	-47.90	-45.30	-42.48	-37.35	-29.39	-21.44	-16.31	-13.48	-10.89	-5.53
39	-46.63	-44.67	-42.75	-40.66	-36.87	-30.98	-25.10	-21.31	-19.22	-17.30	-13.34
40	-50.28	-46.37	-44.47	-42.41	-36.67	-32.87	-27.07	-23.33	-21.27	-19.37	-15.46
41	-52.97	-48.75	-46.70	-44.47	-40.43	-34.15	-27.88	-23.83	-21.61	-19.56	-15.33
42	-55.32	-50.96	-48.95	-46.55	-42.38	-35.91	-29.43	-25.26	-22.96	-20.85	-16.49
43	-58.56	-54.05	-51.87	-49.50	-45.18	-38.50	-31.81	-27.49	-25.12	-22.94	-18.43
44	-61.80	-57.14	-54.88	-52.42	-47.95	-41.02	-34.09	-29.63	-27.17	-24.90	-20.24
45	-66.16	-61.01	-58.51	-55.79	-50.86	-43.21	-35.56	-30.63	-27.91	-25.41	-20.26
46	-69.19	-63.06	-60.58	-57.87	-52.96	-45.34	-37.72	-32.81	-30.10	-27.62	-22.49
47	-72.12	-66.46	-63.72	-60.73	-55.31	-46.91	-38.51	-33.09	-30.11	-27.37	-21.71
48	-72.14	-66.63	-63.97	-61.07	-55.80	-47.63	-39.46	-34.20	-31.30	-28.63	-23.13
49	-71.15	-66.13	-63.69	-61.04	-56.23	-48.77	-41.31	-36.50	-33.85	-31.42	-26.40
50	-72.53	-67.32	-64.81	-62.06	-57.08	-49.36	-41.64	-36.66	-33.92	-31.40	-26.20
51	-75.95	-70.03	-67.16	-64.03	-58.36	-49.56	-40.77	-35.10	-31.97	-29.10	-23.18
52	-79.76	-72.96	-69.66	-66.07	-59.56	-49.46	-39.36	-32.84	-29.26	-25.96	-19.15
53	-82.33	-74.84	-71.22	-67.27	-60.11	-49.00	-37.88	-30.72	-26.77	-23.15	-15.66
54	-82.69	-75.08	-71.40	-67.39	-60.10	-48.81	-37.51	-30.23	-26.22	-22.53	-14.92
55	-86.52	-77.99	-73.86	-69.37	-61.20	-48.55	-35.89	-27.73	-23.23	-19.10	-10.57
56	-87.41	-78.38	-74.00	-69.24	-60.59	-47.19	-33.78	-25.13	-20.37	-15.99	-6.96
57	-89.09	-79.85	-75.37	-70.50	-61.66	-47.94	-34.23	-25.38	-20.51	-16.04	-6.80
58	-90.00	-80.20	-75.46	-70.30	-60.92	-46.38	-31.84	-22.46	-17.30	-12.55	-2.75
59	-90.92	-80.59	-75.58	-70.14	-60.25	-44.91	-29.58	-19.69	-14.25	-9.24	1.09
60	-100.31	-88.19	-82.31	-75.93	-64.32	-46.33	-28.34	-16.74	-10.35	-4.48	7.64
61	-92.20	-81.45	-76.25	-70.58	-60.30	-44.35	-28.40	-18.12	-12.45	-7.25	3.49
62	-86.70	-76.74	-71.92	-66.67	-57.14	-42.36	-27.58	-18.04	-12.80	-7.97	1.99
63	-81.50	-72.77	-67.79	-62.93	-54.08	-40.38	-26.67	-17.83	-12.96	-8.48	.75
64	-76.01	-67.56	-63.47	-59.01	-50.92	-38.38	-25.84	-17.75	-13.30	-9.20	-.75
65	-70.35	-62.88	-59.17	-55.12	-47.78	-36.40	-25.02	-17.68	-13.64	-9.92	-2.25
66	-65.06	-58.18	-54.84	-51.21	-44.62	-34.41	-24.19	-17.60	-13.97	-10.64	-3.75
67	-59.59	-53.49	-50.53	-47.32	-41.48	-32.43	-23.37	-17.53	-14.32	-11.36	-5.26
68	-54.41	-49.03	-46.42	-43.58	-38.42	-30.43	-22.44	-17.28	-14.44	-11.44	-6.45
69	-48.33	-44.33	-42.11	-39.68	-35.28	-28.45	-21.62	-17.22	-14.79	-12.57	-7.97
70	-43.47	-39.65	-37.80	-35.79	-32.13	-26.46	-20.78	-17.13	-15.11	-13.26	-9.44

TABLE 12.8. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

AUGUST

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.24	-5.77	-5.06	-4.29	-2.89	-7.72	1.45	2.85	3.62	4.33	5.79
1	-13.04	-10.18	-8.80	-7.29	-4.55	-3.31	3.94	6.68	8.18	9.57	12.43
2	-12.04	-9.28	-7.94	-6.48	-3.83	2.28	4.32	7.04	8.49	9.83	12.60
3	-12.29	-9.41	-8.02	-6.50	-3.75	5.52	4.80	7.55	9.07	10.46	13.34
4	-12.56	-9.60	-8.17	-6.61	-3.78	6.61	5.01	7.84	9.40	10.83	13.79
5	-13.39	-10.23	-8.70	-7.03	-4.00	6.69	5.38	8.41	10.07	11.60	14.76
6	-13.72	-10.53	-8.99	-7.31	-4.25	4.48	5.22	8.27	9.95	11.50	14.69
7	-13.94	-10.76	-9.22	-7.54	-4.49	2.23	4.35	7.99	9.67	11.21	14.39
8	-14.80	-11.46	-9.84	-8.08	-4.88	0.08	5.03	8.23	9.99	11.61	14.95
9	-15.96	-12.39	-10.66	-8.78	-5.37	-0.07	5.23	8.65	10.53	12.25	15.83
10	-18.02	-13.98	-12.02	-9.89	-6.01	-0.10	6.00	9.87	12.00	13.96	18.01
11	-21.01	-16.32	-14.04	-11.57	-7.07	-0.10	6.87	11.37	13.84	16.12	20.82
12	-23.74	-18.44	-15.87	-13.08	-8.01	-0.15	7.72	12.79	15.58	18.14	23.44
13	-24.50	-19.99	-16.33	-13.43	-8.16	0.02	8.19	13.46	16.36	19.03	24.53
14	-22.32	-17.42	-15.07	-12.47	-7.78	-0.51	6.76	11.45	14.03	16.41	21.31
15	-18.72	-14.39	-13.04	-11.02	-7.36	-1.68	4.00	7.66	9.67	11.57	15.35
16	-15.55	-12.79	-11.44	-9.36	-7.28	-3.12	1.04	3.72	5.19	6.55	9.35
17	-15.63	-13.29	-12.16	-10.93	-8.69	-5.23	-1.76	2.48	3.71	4.94	7.19
18	-16.60	-14.55	-13.56	-12.48	-10.51	-7.47	-4.42	2.46	3.67	4.88	6.67
19	-18.39	-16.36	-15.97	-14.30	-12.36	-9.35	-6.34	2.99	4.92	6.39	9.91
20	-22.57	-20.29	-19.18	-17.98	-15.79	-12.41	-9.02	6.84	9.63	12.25	16.19
21	-24.56	-22.24	-21.11	-19.98	-17.65	-14.21	-10.76	8.53	11.30	14.08	18.85
22	-25.81	-23.54	-22.44	-21.24	-19.06	-15.68	-12.30	10.12	12.89	15.67	20.54
23	-26.72	-24.46	-23.37	-22.18	-20.02	-16.67	-13.32	11.16	13.97	16.72	22.62
24	-26.30	-25.89	-24.72	-23.45	-21.14	-17.56	-14.37	12.17	14.99	17.72	24.61
25	-25.85	-27.27	-26.02	-24.66	-22.13	-19.37	-15.34	13.17	15.97	18.72	26.59
26	-31.19	-28.58	-27.02	-25.54	-22.88	-20.69	-16.53	14.34	17.33	19.90	30.19
27	-32.45	-29.80	-28.07	-26.52	-23.69	-21.31	-17.84	15.53	18.53	21.11	33.40
28	-31.16	-28.63	-27.40	-26.06	-23.64	-21.88	-18.12	14.69	17.36	19.93	32.60
29	-32.44	-29.84	-28.58	-27.21	-24.72	-20.86	-16.99	14.50	17.13	19.87	32.27
30	-31.13	-28.29	-26.91	-25.42	-25.70	-21.49	-17.28	14.57	17.07	19.80	32.86
31	-35.43	-32.46	-31.02	-29.46	-26.62	-22.22	-17.82	14.98	17.42	19.98	34.01
32	-37.31	-33.81	-32.26	-30.47	-27.21	-22.87	-17.12	13.87	16.07	18.43	32.03
33	-36.96	-33.63	-32.01	-30.25	-27.05	-22.10	-17.14	13.95	16.19	18.57	32.23
34	-38.47	-34.87	-33.10	-31.24	-27.79	-22.45	-17.11	13.67	15.78	18.03	31.44
35	-41.94	-37.62	-35.57	-33.35	-29.30	-23.03	-16.77	12.72	15.00	17.45	30.23
36	-40.25	-36.41	-34.07	-32.52	-30.89	-23.71	-16.53	11.90	14.35	16.70	29.16
37	-45.49	-40.80	-38.53	-36.06	-31.57	-24.61	-17.65	13.17	15.70	18.42	33.74
38	-49.52	-44.11	-41.49	-38.64	-33.46	-25.43	-17.39	12.21	14.36	17.33	31.33
39	-48.44	-43.32	-40.85	-38.15	-33.26	-25.67	-18.08	13.18	15.49	18.01	32.90
40	-51.55	-45.31	-43.18	-40.21	-34.81	-26.44	-18.07	12.67	14.97	17.56	31.32
41	-51.18	-45.88	-43.31	-40.52	-35.44	-27.57	-19.70	14.62	16.83	19.26	33.95
42	-52.40	-46.49	-43.69	-40.32	-37.57	-28.66	-19.74	13.99	16.03	18.92	31.91
43	-56.43	-50.72	-47.96	-44.96	-39.50	-31.03	-22.57	17.11	19.10	21.34	35.64
44	-63.79	-56.68	-53.24	-49.49	-42.69	-32.14	-21.59	14.79	16.04	17.60	30.69
45	-65.26	-58.19	-54.77	-51.04	-44.27	-33.78	-23.29	16.52	17.79	19.37	32.30
46	-67.35	-59.35	-55.37	-52.47	-45.39	-34.41	-23.43	16.35	17.45	19.06	31.47
47	-70.35	-62.40	-58.55	-54.37	-46.76	-34.96	-23.17	15.56	16.37	17.52	30.42
48	-67.50	-60.14	-56.87	-52.69	-45.64	-34.71	-23.79	16.74	17.86	19.29	31.93
49	-65.93	-58.71	-55.21	-51.40	-44.49	-33.77	-23.04	16.13	17.32	18.82	31.60
50	-65.99	-58.68	-55.18	-51.28	-44.28	-33.43	-22.57	15.57	16.72	18.18	30.86
51	-69.04	-61.10	-57.25	-53.07	-45.47	-33.69	-21.91	14.31	15.03	16.28	29.66
52	-68.83	-60.87	-57.01	-52.82	-45.19	-33.37	-21.55	13.93	14.69	15.88	29.09
53	-68.55	-60.19	-56.15	-51.74	-43.74	-31.34	-18.94	10.94	11.54	12.49	25.67
54	-74.31	-64.32	-59.48	-54.22	-44.65	-29.82	-14.99	5.43	6.16	6.88	18.67
55	-77.16	-66.13	-60.79	-54.98	-44.42	-28.05	-11.68	1.12	1.69	2.34	10.03
56	-75.84	-65.13	-59.46	-53.29	-42.08	-24.70	-7.32	3.69	4.07	4.54	10.74
57	-76.35	-64.38	-58.58	-52.27	-40.82	-23.05	-5.28	6.18	6.49	6.89	10.26
58	-81.80	-68.23	-61.66	-54.51	-41.52	-21.38	-1.24	11.75	12.90	13.97	19.04
59	-80.18	-65.75	-58.76	-51.15	-37.33	-15.91	5.52	19.34	20.94	22.44	28.37
60	-81.57	-67.19	-60.25	-52.65	-38.89	-17.56	3.78	17.54	19.12	20.69	27.99
61	-74.42	-61.54	-55.30	-48.51	-36.18	-17.06	2.07	14.40	15.99	17.43	24.31
62	-69.07	-57.28	-51.57	-45.35	-34.06	-16.56	0.95	12.23	13.84	15.24	21.16
63	-63.45	-52.80	-47.65	-42.04	-31.85	-16.05	-0.25	9.93	11.54	12.94	18.34
64	-57.86	-48.36	-43.75	-38.75	-29.66	-15.56	-1.46	7.64	9.24	10.74	15.74
65	-52.59	-44.16	-40.08	-35.63	-27.56	-15.05	-2.54	5.33	6.94	8.44	12.49
66	-47.07	-39.77	-36.23	-32.38	-25.38	-14.54	-3.70	3.00	4.61	6.11	10.69
67	-41.64	-35.45	-32.44	-29.18	-23.24	-14.04	-4.84	1.09	2.70	4.20	8.36
68	-36.33	-31.21	-28.78	-26.04	-21.14	-13.54	-5.94	-1.04	1.66	3.16	5.26
69	-31.50	-27.36	-25.35	-23.16	-19.19	-13.04	-6.89	-2.92	0.73	2.23	4.42
70	-26.84	-23.63	-22.07	-20.38	-17.30	-12.53	-7.76	-4.69	-2.99	-1.49	1.78

TABLE 12.9. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

SEPTEMBER

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.73	-7.88	-6.93	-6.01	-4.25	-1.50	1.24	3.01	3.39	4.34	6.73
1	-16.44	-14.77	-12.89	-11.00	-7.54	-2.09	3.36	6.87	8.81	10.59	14.25
2	-17.99	-14.13	-12.25	-10.22	-5.52	-1.78	4.95	8.65	10.63	12.56	16.47
3	-17.10	-13.24	-11.37	-9.34	-5.64	-0.8	5.81	9.51	11.54	13.40	17.26
4	-16.32	-12.51	-10.57	-8.57	-5.03	-0.2	5.27	9.01	11.32	13.76	17.56
5	-16.41	-12.52	-10.64	-8.59	-4.86	-0.2	6.69	10.42	12.47	14.35	18.24
6	-16.56	-12.58	-10.66	-8.55	-4.76	1.14	7.03	10.34	12.37	14.36	19.33
7	-17.08	-12.91	-10.89	-8.69	-4.70	1.48	7.67	11.66	13.66	15.88	20.64
8	-17.46	-13.07	-10.95	-8.63	-4.43	2.09	8.60	12.81	15.12	17.25	21.64
9	-17.92	-13.22	-10.95	-8.47	-3.97	3.00	9.97	14.47	16.84	19.22	23.91
10	-19.49	-14.22	-11.66	-3.93	-3.33	4.00	11.83	16.98	19.66	22.21	27.43
11	-21.40	-15.49	-12.67	-3.52	-3.86	4.92	13.69	19.35	22.46	25.32	31.24
12	-22.20	-15.85	-12.77	-3.42	-3.34	6.03	15.52	21.61	24.36	27.02	34.33
13	-23.56	-16.83	-13.57	-10.07	-2.58	6.41	16.40	22.84	26.39	29.65	36.33
14	-23.00	-16.62	-13.54	-10.18	-4.07	5.33	14.85	20.26	24.32	27.41	33.73
15	-21.00	-15.59	-12.98	-10.13	-4.95	3.07	11.09	16.27	19.12	21.73	27.14
16	-17.95	-13.70	-11.77	-3.53	-5.53	5.77	10.75	12.95	14.37	19.13	19.13
17	-17.21	-13.69	-11.99	-10.14	-6.77	-1.55	3.67	7.03	6.89	10.59	14.11
18	-16.69	-13.75	-12.33	-12.33	-7.96	-3.59	5.74	3.59	5.24	6.57	9.51
19	-17.39	-14.78	-13.51	-12.14	-9.64	-5.76	-1.88	6.2	2.00	3.26	5.88
20	-19.21	-16.64	-15.39	-14.03	-11.50	-7.73	-3.91	-1.44	-0.29	1.17	3.75
21	-19.90	-17.53	-16.38	-15.13	-12.65	-9.33	-5.81	-3.54	-2.29	-1.14	1.24
22	-20.88	-18.55	-17.43	-16.20	-13.97	-10.51	-7.06	-4.83	-3.60	-2.47	-1.19
23	-22.08	-19.67	-18.50	-17.23	-14.91	-11.33	-7.74	-5.43	-4.26	-3.09	-1.57
24	-22.94	-20.44	-19.22	-17.90	-15.50	-11.77	-8.05	-5.65	-4.33	-3.11	-1.60
25	-24.33	-21.67	-20.35	-18.92	-16.32	-12.28	-8.24	-5.64	-4.20	-2.89	-1.17
26	-25.44	-22.84	-21.38	-19.80	-16.92	-12.46	-8.00	-5.13	-3.54	-2.09	-0.92
27	-27.45	-24.09	-22.47	-20.70	-17.49	-12.51	-7.53	-4.71	-2.55	-0.92	2.44
28	-25.39	-22.41	-20.97	-19.41	-16.56	-12.14	-7.72	-4.87	-3.31	-1.86	1.11
29	-27.38	-24.06	-22.45	-20.70	-17.52	-12.59	-7.65	-4.47	-2.72	-1.11	2.21
30	-27.65	-24.14	-22.44	-20.59	-17.23	-12.02	-6.81	-3.45	-1.60	-0.10	3.62
31	-28.55	-24.86	-23.07	-21.13	-17.59	-12.12	-6.64	-3.11	-1.16	0.63	4.32
32	-28.78	-25.00	-23.17	-21.17	-17.55	-11.94	-6.32	-2.70	-0.71	1.12	4.91
33	-29.38	-25.37	-23.43	-21.31	-17.47	-11.52	-5.57	-1.73	-0.38	2.33	6.34
34	-30.66	-26.10	-23.90	-21.50	-17.14	-10.39	-3.63	-0.73	3.13	5.33	9.94
35	-31.64	-26.71	-24.32	-21.72	-17.00	-9.68	-2.36	2.36	4.96	7.35	12.28
36	-31.27	-26.38	-24.00	-21.42	-16.73	-9.46	-2.19	2.49	5.08	7.45	12.35
37	-32.06	-27.03	-24.59	-21.94	-17.12	-9.65	-2.18	2.64	5.29	7.73	12.77
38	-33.31	-28.11	-25.59	-22.84	-17.86	-10.13	-2.41	2.58	5.32	7.84	13.05
39	-35.61	-28.53	-25.98	-23.20	-18.15	-10.32	-2.49	2.56	5.34	7.89	13.17
40	-34.04	-28.64	-26.03	-23.18	-18.01	-9.99	-1.97	3.20	6.04	8.66	14.06
41	-37.02	-30.85	-27.87	-24.61	-18.71	-9.55	-0.39	5.52	8.77	11.76	17.93
42	-38.62	-32.09	-28.97	-25.58	-19.42	-9.88	-0.33	5.83	9.22	12.33	18.76
43	-43.63	-36.49	-33.03	-29.27	-22.43	-11.83	-1.24	5.60	9.36	12.82	19.96
44	-42.83	-35.82	-32.43	-28.73	-22.03	-11.62	-1.22	5.48	9.18	12.57	19.58
45	-40.94	-34.04	-30.69	-27.05	-20.44	-10.19	0.06	6.67	10.31	13.66	20.56
46	-37.63	-31.31	-28.25	-24.92	-18.87	-9.49	-0.11	5.93	9.27	12.33	18.64
47	-38.62	-31.98	-28.77	-25.27	-18.91	-9.06	0.80	7.15	10.65	13.87	20.51
48	-38.95	-32.22	-28.96	-25.41	-18.97	-8.98	1.02	7.46	11.01	14.27	21.00
49	-37.58	-31.02	-27.84	-24.38	-18.09	-8.34	1.40	7.69	11.15	14.33	20.89
50	-37.32	-30.35	-26.97	-23.30	-16.62	-6.27	4.07	10.75	14.42	17.40	24.77
51	-41.03	-33.23	-29.46	-25.35	-17.88	-6.31	5.26	12.72	16.83	20.61	28.40
52	-43.77	-35.62	-31.67	-27.38	-19.58	-7.48	4.62	12.42	16.71	20.66	29.81
53	-45.02	-36.43	-32.27	-27.75	-19.52	-6.77	5.97	14.20	18.72	22.88	31.47
54	-43.71	-34.86	-30.57	-25.91	-17.43	-4.30	8.84	17.31	21.97	26.25	35.11
55	-43.32	-34.18	-29.75	-24.93	-16.18	-2.60	10.97	19.72	24.54	28.97	38.11
56	-42.81	-33.83	-29.49	-24.76	-16.16	-2.84	10.49	19.09	23.81	28.16	37.14
57	-43.79	-34.44	-29.91	-24.98	-16.03	-2.15	11.73	20.68	25.61	30.14	39.49
58	-43.23	-33.22	-28.37	-23.09	-13.51	1.35	16.21	25.79	31.07	35.91	45.92
59	-37.77	-29.03	-24.80	-20.20	-11.84	1.12	14.08	22.44	27.04	31.27	40.00
60	-47.11	-35.42	-29.76	-23.59	-12.40	4.95	22.31	33.50	39.66	45.33	57.02
61	-46.11	-34.70	-29.17	-23.16	-12.23	4.70	21.64	32.57	38.58	44.11	55.52
62	-45.18	-34.03	-28.63	-22.76	-12.09	4.46	21.01	31.68	37.56	42.96	54.10
63	-44.55	-33.60	-28.30	-22.53	-12.04	4.22	20.47	30.96	36.73	42.03	52.99
64	-43.63	-32.94	-27.76	-22.13	-11.89	3.97	19.84	30.07	35.71	40.88	51.57
65	-42.98	-32.49	-27.41	-21.88	-11.84	3.74	19.31	29.35	34.88	39.96	50.46
66	-42.35	-32.05	-27.07	-21.64	-11.79	3.49	18.77	28.62	34.05	39.03	49.33
67	-41.42	-31.39	-26.53	-21.24	-11.64	3.25	18.14	27.74	33.03	37.88	47.92
68	-40.79	-30.96	-26.20	-21.01	-11.60	3.00	17.60	27.01	32.20	36.96	46.80
69	-39.87	-30.30	-25.66	-20.61	-11.45	2.76	16.97	26.13	31.18	35.81	45.38
70	-39.23	-29.86	-25.32	-20.38	-11.40	2.51	16.43	25.40	30.34	34.88	44.26

TABLE 12.10. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

OCTOBER

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.35	-7.32	-6.83	-5.77	-3.73	-2.57	2.50	4.63	5.75	5.78	8.91
1	-17.73	-12.00	-10.20	-10.24	-6.67	-1.14	4.30	7.90	9.92	11.73	15.45
2	-15.18	-12.33	-10.40	-3.40	-4.74	.37	6.69	10.38	12.41	14.27	19.12
3	-15.17	-11.14	-8.21	-7.11	-3.29	2.33	8.55	12.30	14.46	16.40	20.38
4	-14.41	-10.35	-8.27	-6.04	-2.05	4.13	10.31	14.29	16.43	18.50	22.67
5	-13.73	-9.35	-7.27	-4.90	-1.73	5.77	12.27	16.47	18.77	20.90	25.27
6	-13.34	-9.00	-6.75	-4.23	.74	7.43	14.52	19.09	21.61	23.92	29.72
7	-14.30	-9.45	-6.81	-3.94	1.28	9.37	17.40	22.68	25.55	28.19	33.64
8	-15.76	-9.61	-6.67	-3.30	2.49	11.61	20.74	26.62	29.86	32.44	38.99
9	-17.78	-10.67	-7.27	-3.48	3.32	13.82	24.45	31.20	35.01	38.45	45.57
10	-19.59	-11.50	-7.73	-3.52	4.13	15.00	27.90	35.51	39.72	43.59	51.59
11	-20.30	-12.12	-7.66	-3.52	5.18	16.22	31.20	39.67	44.30	48.56	59.11
12	-19.59	-10.73	-6.47	-1.30	6.54	17.76	34.39	41.34	46.00	50.29	57.97
13	-17.90	-9.38	-5.75	.70	7.39	20.03	37.69	40.82	45.32	49.45	52.87
14	-15.96	-8.23	-4.40	-1.42	8.93	17.46	39.93	37.33	41.42	45.14	44.09
15	-13.42	-6.96	-3.87	-1.40	9.75	17.33	44.82	31.10	34.50	37.63	34.32
16	-12.30	-5.83	-4.36	-1.51	10.38	11.11	43.95	23.94	26.59	29.11	24.32
17	-12.72	-8.36	-6.25	-3.95	12.22	13.18	43.37	17.37	19.63	21.74	26.10
18	-13.21	-8.57	-7.00	-5.33	13.40	13.01	41.90	11.90	13.81	15.59	19.22
19	-13.86	-10.71	-9.12	-7.52	14.50	13.18	40.66	7.87	9.53	11.06	14.21
20	-14.59	-11.63	-10.27	-9.74	15.90	11.64	38.67	5.45	6.39	7.39	11.30
21	-14.83	-12.07	-10.74	-10.20	16.65	12.50	37.10	4.16	5.62	6.55	9.71
22	-15.51	-12.73	-11.30	-10.32	17.26	13.14	35.30	3.64	5.10	6.44	8.22
23	-16.77	-13.82	-12.39	-11.83	17.99	13.61	33.61	3.61	5.17	6.61	7.56
24	-17.70	-14.52	-12.33	-11.31	18.27	13.55	31.16	4.20	5.81	7.41	10.59
25	-18.04	-14.65	-13.07	-11.30	18.09	13.12	28.70	5.05	6.82	8.44	11.79
26	-18.93	-15.10	-13.35	-11.39	17.32	12.23	26.24	6.81	8.77	10.58	14.30
27	-19.31	-15.27	-13.32	-11.16	17.32	11.32	23.70	8.54	10.67	12.62	16.66
28	-18.27	-14.45	-12.59	-10.57	16.91	11.23	21.16	8.12	10.18	11.99	15.82
29	-18.55	-14.36	-12.33	-10.12	16.10	11.22	18.60	10.36	12.57	14.60	18.80
30	-19.78	-14.96	-12.62	-10.03	15.46	11.71	16.07	13.49	16.03	18.37	23.19
31	-21.69	-16.19	-13.52	-10.63	15.36	12.80	13.97	16.23	19.13	21.80	27.30
32	-22.95	-16.71	-13.69	-10.40	14.43	14.83	11.08	20.05	23.34	26.36	32.60
33	-23.65	-16.66	-13.28	-9.60	12.91	17.46	10.83	24.51	28.20	31.58	38.56
34	-23.29	-15.66	-11.90	-7.94	10.70	22.02	29.33	29.33	33.35	37.05	44.68
35	-23.75	-15.51	-11.52	-7.18	12.93	25.16	33.05	37.39	41.37	45.38	55.71
36	-26.71	-17.45	-12.97	-8.09	14.50	28.24	37.09	41.97	46.06	51.07	61.41
37	-30.67	-20.33	-15.32	-9.87	15.37	30.72	40.61	46.55	54.83	65.72	77.78
38	-31.29	-20.40	-15.12	-9.38	15.05	27.22	33.38	43.81	49.55	58.83	71.78
39	-32.93	-21.18	-15.42	-9.28	14.97	19.42	26.87	48.13	54.33	62.75	74.64
40	-31.27	-19.37	-13.61	-7.35	14.04	21.69	39.34	50.72	58.83	64.72	76.90
41	-31.53	-19.35	-13.46	-7.04	14.62	22.69	40.76	52.41	61.21	67.30	79.86
42	-32.00	-19.44	-13.36	-6.74	15.23	23.93	42.57	54.59	62.82	69.02	81.84
43	-32.28	-19.47	-13.26	-6.51	15.76	24.78	43.80	56.06	64.06	70.19	83.71
44	-29.48	-17.14	-11.17	-4.66	17.15	25.46	43.77	55.58	62.09	68.06	80.40
45	-28.50	-16.02	-9.97	-3.39	18.56	27.08	45.61	57.56	64.14	70.19	82.67
46	-26.32	-14.50	-8.43	-1.94	19.95	28.39	46.83	58.72	65.27	71.29	83.71
47	-26.69	-14.01	-7.87	-1.19	20.95	29.77	48.59	60.73	67.42	73.56	85.24
48	-24.10	-11.66	-5.64	.92	22.83	31.29	49.76	61.66	68.22	74.24	86.68
49	-22.45	-9.97	-3.92	2.66	24.61	33.14	51.67	63.63	70.21	76.25	88.74
50	-19.22	-7.00	-1.08	5.36	27.06	35.20	53.34	65.03	71.47	77.39	90.43
51	-20.39	-7.95	-1.92	4.64	26.55	35.02	53.49	65.40	71.96	77.99	91.92
52	-17.73	-5.41	.55	7.04	28.82	37.10	55.37	67.16	73.65	79.61	93.93
53	-16.06	-3.93	1.94	8.33	29.94	37.93	55.93	67.54	73.93	79.58	94.98
54	-13.85	-1.91	3.87	10.16	31.59	39.31	57.03	68.46	74.75	80.54	96.99
55	-15.59	-3.23	2.76	9.27	31.10	39.45	57.80	69.63	76.14	82.13	98.49
56	-16.63	-3.94	2.21	8.90	31.04	39.88	58.72	70.86	77.55	83.70	99.39
57	-18.07	-4.75	1.70	8.72	31.27	41.24	61.01	73.75	80.77	87.22	100.54
58	-21.54	-7.73	-1.04	6.24	31.96	39.95	60.45	73.67	80.35	87.64	101.45
59	-20.17	-6.90	-.47	6.52	31.22	38.92	58.61	71.32	78.31	84.74	98.00
60	-25.13	-11.02	-4.19	3.24	35.75	37.69	58.63	72.14	79.57	84.05	100.52
61	-26.03	-12.11	-5.30	1.98	35.30	35.97	56.64	69.97	77.31	81.62	95.35
62	-26.85	-13.13	-6.49	.75	33.88	34.25	54.61	67.75	74.98	78.98	92.43
63	-27.37	-13.92	-7.41	-.32	32.56	32.53	52.49	65.37	72.46	76.55	89.80
64	-28.18	-14.93	-8.51	-1.53	31.15	30.81	50.47	63.15	70.14	74.14	87.18
65	-29.00	-15.95	-9.63	-2.76	29.73	29.09	48.46	60.94	67.82	71.71	84.55
66	-29.81	-16.97	-10.75	-3.98	28.31	27.37	46.43	58.72	65.49	69.28	81.92
67	-30.62	-17.99	-11.87	-5.21	26.89	25.65	44.41	56.50	63.16	66.64	79.01
68	-31.14	-18.78	-12.79	-6.27	25.57	23.33	42.29	54.13	60.65	64.22	76.38
69	-31.98	-19.81	-13.92	-7.50	24.14	22.20	40.26	51.91	58.32	61.80	73.78
70	-32.79	-20.82	-15.03	-8.72	22.73	20.49	38.25	49.70	56.01		

TABLE 12.11. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

NOVEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.18	-7.07	-6.08	-4.88	-3.94	-3.18	3.30	8.72	8.43	7.44	9.55
1	-13.38	-15.06	-12.96	-10.60	-8.03	-6.11	5.32	10.46	12.74	14.34	13.17
2	-18.07	-13.48	-11.08	-8.55	-6.46	-5.34	3.15	13.52	15.35	18.17	20.75
3	-16.42	-11.64	-8.37	-6.41	-5.27	4.85	11.36	16.50	17.55	21.37	26.15
4	-14.82	-9.85	-7.50	-6.06	-4.18	7.14	14.46	19.18	21.75	24.16	29.09
5	-14.27	-9.90	-6.20	-4.96	1.68	3.55	17.02	22.77	25.00	23.20	23.57
6	-13.86	-7.97	-5.12	-3.02	3.61	17.35	21.08	26.71	28.00	20.67	29.55
7	-12.66	-6.44	-3.43	-1.14	1.21	18.05	24.23	30.20	32.43	25.54	40.77
8	-12.39	-5.59	-2.20	1.20	7.81	17.91	28.01	34.52	35.11	41.40	48.21
9	-11.66	-4.73	-1.37	2.93	3.34	20.75	31.55	33.51	42.05	45.37	53.15
10	-12.18	-4.17	-1.22	3.94	11.62	27.52	35.42	43.10	47.00	51.21	59.22
11	-10.67	-2.77	1.66	5.02	13.33	27.30	33.62	45.56	50.04	54.20	67.25
12	-9.26	-1.80	3.22	7.75	15.85	27.40	40.95	49.05	53.61	57.60	67.05
13	-7.19	-1.36	4.70	9.00	16.70	28.55	40.59	48.30	52.54	55.44	64.43
14	-5.50	1.73	5.24	9.05	15.07	25.70	37.44	44.38	46.17	51.67	58.90
15	-3.87	2.15	5.07	9.25	14.01	22.36	31.30	37.67	40.04	43.75	49.73
16	-4.83	4.44	2.99	5.77	10.32	12.64	26.46	31.51	34.22	36.84	42.11
17	-7.11	-2.37	-1.07	2.43	5.93	14.02	21.07	25.61	28.12	30.42	35.13
18	-9.34	-5.13	-3.05	-1.87	3.17	7.42	15.67	19.70	21.00	23.06	28.17
19	-10.21	-6.55	-4.71	-1.35	1.04	6.06	11.49	14.90	15.91	17.80	22.34
20	-11.42	-7.96	-6.20	-4.46	-1.15	3.98	9.12	12.42	14.25	15.23	19.38
21	-12.54	-9.02	-7.31	-5.46	-2.03	3.14	3.35	11.72	13.52	15.03	18.31
22	-13.46	-9.75	-7.07	-5.00	-2.46	3.06	8.56	12.11	14.08	15.56	19.57
23	-13.93	-10.00	-3.02	-1.02	-2.26	3.53	3.41	13.13	15.05	17.15	21.03
24	-14.56	-10.27	-8.10	-5.92	-1.32	4.55	10.92	15.03	17.22	19.07	23.65
25	-15.42	-10.51	-3.28	-5.75	-1.15	7.39	13.13	17.73	20.27	22.55	27.40
26	-15.44	-10.20	-7.80	-5.08	-1.17	7.49	15.17	20.66	22.77	25.07	30.42
27	-16.67	-10.93	-9.03	-5.03	1.51	9.09	17.63	23.22	25.07	27.07	34.43
28	-14.82	-9.15	-6.41	-3.42	2.00	10.40	18.81	24.23	27.22	29.96	35.63
29	-14.36	-8.24	-5.28	-2.06	3.79	12.87	21.94	27.80	31.02	33.98	40.09
30	-14.64	-8.03	-4.82	-1.34	5.00	14.82	24.64	30.97	34.46	37.66	44.27
31	-12.15	-5.51	-2.30	1.20	7.55	17.40	27.25	33.61	37.10	40.32	46.95
32	-8.87	-2.28	1.90	4.37	10.67	20.45	30.22	36.52	39.99	43.19	49.76
33	-8.98	-1.64	1.91	5.78	12.80	23.68	34.57	41.59	45.46	49.01	56.34
34	-8.18	-1.34	3.45	7.58	15.08	26.72	38.35	45.85	49.98	53.77	61.61
35	-7.10	1.98	4.89	9.15	16.88	28.87	40.86	48.59	52.85	56.76	64.84
36	-7.25	1.35	5.52	10.05	18.28	31.04	43.80	52.03	56.56	60.73	69.32
37	-7.09	1.87	6.21	10.94	19.51	32.82	46.12	54.70	59.42	63.76	72.73
38	-4.46	4.47	8.80	13.50	22.05	35.30	48.55	57.10	61.80	66.13	75.05
39	-2.51	6.42	10.75	15.45	24.00	37.26	50.51	59.06	63.77	68.10	77.03
40	1.02	9.84	14.11	18.76	27.20	40.29	53.37	61.81	66.46	70.73	79.55
41	4.53	12.85	16.88	21.26	29.23	41.57	53.92	61.89	66.27	70.30	78.62
42	7.35	15.38	19.26	23.49	31.17	43.09	55.00	62.68	66.91	70.80	78.82
43	10.19	18.02	21.80	25.93	33.41	45.02	56.63	64.12	68.24	72.03	79.85
44	12.10	19.84	23.59	27.67	35.07	46.56	58.05	65.46	69.54	73.29	81.03
45	10.91	19.65	23.88	28.49	36.85	49.82	62.79	71.16	75.76	79.99	88.73
46	10.54	19.70	24.13	28.96	37.72	51.31	64.90	73.66	78.49	82.92	92.08
47	12.07	21.71	26.38	31.46	40.69	55.00	69.31	78.54	83.63	88.30	97.99
48	10.24	20.88	26.03	31.63	41.81	57.60	73.39	83.57	89.17	94.32	104.96
49	9.64	20.77	26.16	32.03	42.68	59.20	75.72	86.38	92.25	97.64	108.77
50	12.11	23.41	28.88	34.84	45.66	62.44	79.22	90.04	96.00	101.44	112.78
51	11.50	23.23	28.91	35.09	46.32	63.73	81.14	92.36	98.54	104.23	115.95
52	12.35	24.04	29.70	35.86	47.06	64.41	81.76	92.95	99.12	104.78	116.47
53	11.31	23.46	29.35	35.76	47.40	65.44	83.49	95.13	101.53	107.42	119.58
54	15.29	26.84	32.44	38.53	49.58	66.73	83.87	94.93	101.02	106.61	118.17
55	15.86	27.19	32.68	38.65	49.50	66.31	83.13	93.98	99.95	105.44	116.77
56	10.33	23.04	29.19	35.89	48.06	66.93	85.79	97.96	104.66	110.81	123.53
57	6.52	20.35	27.05	34.34	47.58	68.11	88.65	101.89	109.18	115.88	129.71
58	9.95	22.86	29.11	35.91	48.27	67.43	86.59	98.95	105.75	112.00	124.91
59	15.88	30.66	35.88	41.57	51.89	67.00	83.51	94.23	99.91	105.14	115.92
60	15.99	28.16	34.06	40.47	52.12	70.19	88.25	99.90	106.32	112.21	124.38
61	13.93	26.16	32.09	38.54	50.25	68.41	86.57	98.28	104.73	110.65	122.89
62	13.04	25.07	30.90	37.24	48.76	66.62	84.48	96.00	102.34	108.17	120.20
63	12.15	23.98	29.71	35.95	47.27	64.83	82.39	93.72	99.95	105.68	117.51
64	11.26	22.89	28.52	34.65	45.78	63.04	80.30	91.44	97.57	103.20	114.83
65	10.36	21.80	27.33	33.36	44.30	61.27	78.23	89.17	95.20	100.74	112.17
66	9.76	20.92	26.33	32.22	42.90	59.48	76.05	86.74	92.62	98.03	109.20
67	8.67	19.83	25.18	30.92	41.42	57.69	73.96	84.46	90.24	95.55	106.51
68	7.98	18.74	23.95	29.63	39.93	55.90	71.88	82.18	87.85	93.06	103.82
69	7.09	17.65	22.77	28.33	38.44	54.11	69.79	79.90	85.46	90.58	101.14
70	6.20	16.56	21.58	27.04	36.95	52.33	67.70	77.62	83.08	88.09	98.45

TABLE 12.12. CAPE KENNEDY HEAD- AND TAILWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH
DECEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-8.32	-6.27	-5.27	-4.15	-2.23	.82	3.86	5.82	6.90	7.90	9.95
1	-19.03	-14.53	-12.35	-9.97	-5.60	1.02	7.70	12.01	14.39	16.56	21.06
2	-16.87	-12.10	-9.91	-7.31	-2.78	4.24	11.50	15.79	18.29	20.58	25.31
3	-14.41	-9.50	-7.12	-4.53	-.17	7.45	14.74	19.45	22.02	24.40	29.31
4	-12.68	-7.46	-4.04	-2.12	2.91	10.54	13.28	22.27	26.02	28.54	33.76
5	-12.34	-6.77	-3.97	-.93	4.59	12.15	11.73	27.26	30.20	33.10	38.87
6	-11.38	-5.21	-2.22	1.03	6.93	16.08	15.23	31.13	34.38	37.37	43.54
7	-11.51	-4.67	-1.35	3.25	8.32	11.93	23.14	35.70	39.31	42.62	49.47
8	-11.74	-4.19	-.57	3.45	10.63	21.69	33.10	40.33	44.31	47.97	55.52
9	-13.07	-4.52	-.37	4.13	12.32	25.02	37.72	45.91	50.42	54.56	63.12
10	-14.03	-4.58	-.01	4.97	14.01	28.02	42.04	51.08	56.07	60.63	70.07
11	-12.76	-3.05	1.67	6.77	16.07	30.43	44.83	54.13	59.31	64.01	73.72
12	-10.74	-.97	3.70	8.71	18.27	32.76	47.26	56.61	61.76	66.49	76.26
13	-8.41	2.54	5.07	11.53	20.15	35.43	46.72	55.28	60.00	64.33	73.29
14	-4.16	3.97	7.04	11.27	22.07	37.11	44.26	52.07	56.37	60.32	69.47
15	-3.24	3.37	6.37	11.06	15.50	24.64	33.79	39.65	42.94	45.92	52.08
16	-2.79	3.37	6.37	11.06	15.50	24.64	33.79	39.65	42.94	45.92	52.08
17	-3.74	1.61	4.21	7.03	12.15	20.10	29.05	33.18	36.00	38.59	43.95
18	-5.70	-1.02	1.22	3.63	8.21	15.20	22.00	26.71	29.20	31.48	36.20
19	-9.09	-4.53	-2.54	-.21	4.01	10.55	17.12	21.34	23.67	25.81	30.22
20	-11.21	-6.92	-4.87	-2.50	1.51	7.87	14.23	18.32	20.50	22.67	26.95
21	-11.53	-7.50	-5.50	-3.32	-.63	6.77	12.90	16.90	19.04	21.04	25.17
22	-11.34	-7.30	-5.30	-3.21	-.67	6.67	12.67	16.54	18.67	20.63	24.68
23	-12.46	-7.93	-5.93	-3.46	-.97	7.47	14.12	18.40	20.76	22.93	27.41
24	-13.51	-8.42	-6.42	-3.22	1.50	9.14	16.69	21.56	24.24	26.70	31.79
25	-14.43	-8.72	-6.02	-3.01	2.45	10.33	19.40	24.86	27.87	30.64	36.34
26	-16.40	-9.94	-6.82	-3.41	2.77	12.36	21.94	28.12	31.53	34.65	41.11
27	-17.83	-10.83	-7.44	-3.75	2.96	13.35	23.75	30.45	34.14	37.53	44.54
28	-25.46	-17.08	-13.01	-8.59	-.57	11.88	24.33	32.36	36.78	40.84	49.23
29	-29.91	-28.29	-15.64	-10.57	-1.36	12.91	27.18	36.39	41.46	46.11	55.73
30	-32.14	-21.74	-16.70	-11.22	-1.27	14.17	29.61	39.56	45.05	50.08	60.48
31	-36.20	-24.49	-18.81	-12.63	-1.42	15.97	33.36	44.58	50.75	56.43	68.15
32	-39.82	-27.01	-20.81	-14.06	-1.80	17.21	36.21	48.47	55.22	61.47	74.23
33	-45.31	-31.07	-24.17	-16.66	-3.03	18.11	39.25	52.86	60.39	67.29	81.53
34	-47.38	-32.37	-25.09	-17.18	-2.81	19.48	41.77	56.14	64.06	71.33	86.35
35	-49.53	-33.90	-26.18	-17.89	-2.83	20.52	43.87	58.92	67.22	74.83	90.56
36	-51.81	-35.38	-27.45	-18.77	-3.04	21.34	45.73	61.45	70.11	78.07	94.50
37	-57.01	-39.23	-30.62	-21.25	-4.23	22.15	48.54	65.56	74.93	83.54	101.31
38	-62.33	-43.22	-33.96	-23.89	-5.59	22.78	51.14	69.44	79.51	88.77	107.88
39	-66.63	-46.45	-36.68	-26.05	-6.73	23.21	53.16	72.48	83.11	92.88	113.06
40	-69.03	-48.11	-37.98	-26.95	-6.93	24.12	55.18	75.20	86.23	96.36	117.28
41	-69.67	-48.43	-38.14	-26.95	-6.62	24.91	56.44	76.77	87.96	98.25	119.49
42	-69.71	-48.50	-38.23	-27.05	-6.76	24.72	56.20	76.50	87.67	97.95	119.15
43	-70.86	-49.50	-39.15	-27.89	-7.44	24.26	55.97	76.42	87.68	98.02	119.39
44	-68.93	-47.98	-37.83	-26.79	-6.73	24.37	55.48	75.53	86.58	96.73	117.68
45	-72.51	-50.70	-40.14	-23.65	-7.77	24.60	56.98	77.85	89.35	99.91	121.72
46	-73.14	-51.02	-40.30	-23.64	-7.77	25.38	58.22	79.40	91.06	101.78	123.91
47	-73.41	-51.15	-40.36	-23.63	-7.31	25.74	58.79	80.11	91.84	102.63	124.89
48	-73.72	-51.35	-40.52	-23.73	-7.32	25.88	59.08	80.49	92.28	103.12	125.48
49	-74.01	-51.62	-40.77	-23.96	-7.52	25.73	58.97	80.41	92.22	103.07	125.47
50	-72.21	-50.17	-39.49	-27.88	-6.78	25.93	58.65	79.75	91.36	102.04	124.08
51	-73.85	-51.33	-40.43	-28.57	-7.02	26.40	59.81	81.36	93.22	104.13	126.64
52	-75.69	-52.99	-42.00	-30.03	-8.30	25.40	59.09	80.82	92.79	103.78	126.49
53	-76.21	-53.28	-42.17	-30.09	-8.14	25.90	59.93	81.86	93.97	105.07	128.00
54	-77.54	-54.10	-42.75	-30.40	-7.97	26.82	61.60	84.04	96.39	107.74	131.17
55	-76.80	-53.23	-41.82	-29.40	-6.85	28.13	63.10	85.66	98.08	109.49	133.05
56	-76.95	-52.64	-40.87	-28.06	-4.79	31.29	67.38	90.64	103.46	115.23	139.54
57	-73.16	-49.45	-37.96	-25.46	-2.76	32.44	67.64	90.34	102.84	114.33	138.05
58	-70.29	-48.23	-37.55	-25.92	-4.81	27.93	60.66	81.77	93.40	104.08	126.14
59	-68.73	-46.30	-35.44	-23.61	-2.14	31.15	64.44	85.91	97.73	108.59	131.02
60	-64.43	-42.22	-31.46	-19.75	1.52	34.49	67.47	88.73	100.44	111.20	133.41
61	-68.96	-46.12	-35.06	-23.02	-1.16	32.74	66.64	88.50	100.53	111.59	134.43
62	-64.81	-43.30	-32.88	-21.54	-.94	30.99	62.92	83.51	94.85	105.27	126.78
63	-60.95	-40.70	-30.89	-20.22	-.83	29.23	59.30	78.69	89.36	99.17	119.42
64	-56.81	-37.88	-28.71	-18.74	-.61	27.48	55.58	73.70	83.68	92.85	111.78
65	-52.69	-35.08	-26.55	-17.27	-.41	25.73	51.87	68.72	78.01	86.54	104.15
66	-48.56	-32.27	-24.38	-15.80	-.21	23.97	48.15	63.74	72.32	80.21	96.50
67	-44.43	-29.47	-22.22	-14.33	-.00	22.22	44.43	58.76	66.65	73.90	88.87
68	-40.60	-26.89	-20.24	-13.02	.11	20.46	40.82	53.94	61.17	67.81	81.53
69	-36.48	-24.09	-18.08	-11.55	.32	18.71	37.11	48.98	55.51	61.51	73.91
70	-32.38	-21.30	-15.93	-10.09	.51	16.96	33.41	44.01	49.85	55.22	66.30

TABLE 13.1. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

JANUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.31	-8.15	-7.10	-5.96	-3.89	-2.68	2.53	4.60	5.74	6.79	8.95
1	-17.85	-13.46	-11.24	-9.03	-4.84	1.66	8.17	12.36	14.67	16.79	21.17
2	-17.16	-12.61	-10.41	-8.01	-3.66	7.10	9.85	14.20	16.60	18.80	23.35
3	-18.37	-13.28	-10.82	-8.14	-3.27	4.29	11.84	16.71	19.40	21.86	26.95
4	-19.30	-13.71	-11.00	-8.06	-2.71	5.59	13.88	19.23	22.17	24.88	30.47
5	-20.75	-14.54	-11.53	-8.25	-2.30	6.92	16.15	22.10	25.37	28.38	34.60
6	-22.10	-15.23	-11.90	-8.28	-1.70	8.50	18.71	25.28	28.31	32.24	39.11
7	-24.31	-16.59	-12.86	-9.79	-1.41	10.04	21.49	28.87	32.93	36.67	44.38
8	-26.47	-18.00	-13.39	-9.42	-1.30	11.28	23.87	31.98	36.45	40.56	49.04
9	-28.53	-19.32	-14.86	-10.00	-1.18	12.49	26.17	34.99	39.87	44.31	53.52
10	-29.90	-20.06	-15.23	-10.11	-1.09	13.92	28.52	37.94	43.12	47.89	57.73
11	-31.98	-21.47	-16.38	-10.84	-0.78	14.82	30.42	40.48	46.02	51.11	61.62
12	-30.78	-20.38	-15.34	-9.86	-0.9	15.52	30.95	40.91	46.39	51.42	61.82
13	-24.48	-15.51	-11.16	-6.44	2.15	15.47	28.78	37.37	42.10	46.44	55.41
14	-20.78	-12.90	-9.03	-4.93	2.62	14.33	26.03	33.58	37.73	41.55	49.44
15	-18.89	-11.72	-8.24	-4.46	2.40	13.05	23.70	30.56	34.35	37.82	44.99
16	-15.68	-9.61	-6.66	-4.46	2.35	11.37	20.39	26.21	29.41	32.35	39.43
17	-14.95	-9.57	-6.97	-4.13	1.02	9.01	17.00	22.15	24.99	27.59	32.97
18	-13.06	-8.62	-6.48	-4.14	-1.0	6.68	13.25	17.50	21.93	21.98	26.41
19	-11.32	-7.75	-6.02	-4.14	-0.72	4.58	9.89	13.29	17.18	16.90	20.47
20	-10.95	-7.94	-6.33	-4.70	-1.72	2.89	7.50	10.44	12.11	13.62	15.72
21	-11.06	-8.13	-6.72	-5.16	-2.38	1.96	6.29	9.09	10.63	12.04	14.97
22	-11.97	-8.88	-7.30	-5.76	-2.90	1.78	6.36	9.32	10.94	12.44	15.52
23	-12.76	-9.46	-7.87	-6.13	-2.97	1.93	6.83	9.99	11.73	13.33	16.63
24	-12.73	-9.40	-7.79	-6.03	-2.85	2.09	7.03	10.22	11.97	13.58	16.91
25	-13.15	-9.63	-7.92	-6.06	-2.69	2.55	7.78	11.15	12.01	14.72	18.24
26	-14.74	-10.72	-8.77	-6.55	-2.81	3.16	9.13	12.97	15.09	17.04	21.06
27	-16.17	-11.66	-9.47	-7.10	-2.77	3.92	10.62	14.94	17.22	19.51	24.02
28	-18.12	-12.62	-9.62	-7.67	-1.12	5.38	10.88	14.43	16.38	18.17	21.88
29	-18.69	-12.78	-9.77	-7.67	-1.1	6.06	11.98	15.79	17.89	19.82	23.81
30	-18.16	-12.78	-9.68	-7.38	-1.80	7.29	13.77	17.95	20.25	22.36	26.73
31	-18.30	-12.65	-9.59	-7.94	-1.52	8.42	15.33	19.79	22.24	24.49	29.15
32	-18.33	-10.01	-7.44	-6.64	-1.46	8.35	16.24	21.34	24.14	26.72	32.03
33	-18.42	-12.58	-9.76	-6.68	-1.10	7.56	16.21	21.80	24.87	27.69	33.53
34	-18.53	-13.58	-10.65	-7.55	-1.85	6.98	15.82	21.52	24.66	27.55	33.50
35	-21.93	-15.52	-12.42	-9.04	-2.91	6.68	16.11	22.24	25.61	28.72	35.12
36	-21.38	-15.09	-12.09	-8.72	-2.70	5.64	15.98	22.00	25.32	28.37	34.66
37	-23.10	-16.82	-13.88	-9.66	-3.27	6.64	16.55	22.94	26.46	29.69	36.37
38	-24.24	-17.13	-13.78	-10.06	-3.31	7.15	17.62	24.37	28.08	31.50	38.55
39	-25.19	-16.21	-12.83	-9.15	-2.47	7.88	18.24	24.91	28.59	31.97	38.95
40	-25.68	-16.96	-13.13	-9.40	-2.61	7.90	18.42	25.20	28.93	32.37	39.45
41	-22.96	-15.86	-12.42	-8.68	-1.89	8.65	19.18	25.98	29.72	33.15	40.25
42	-24.32	-17.14	-13.37	-9.27	-1.82	9.72	21.27	28.72	32.82	36.59	44.37
43	-25.10	-17.02	-13.11	-8.84	-1.11	10.89	22.89	30.63	34.89	38.81	46.89
44	-25.84	-17.29	-13.15	-8.65	-0.47	12.22	24.91	33.09	37.60	41.74	50.29
45	-26.54	-17.57	-13.23	-8.50	-0.9	13.40	26.72	35.31	40.03	44.38	53.35
46	-27.84	-18.17	-13.46	-8.38	-0.89	15.26	29.62	38.89	43.99	48.68	58.36
47	-29.68	-19.22	-14.15	-8.64	1.38	16.91	32.44	42.46	47.97	53.04	63.50
48	-28.13	-18.98	-13.32	-7.70	2.51	18.33	34.16	44.36	49.98	55.15	65.81
49	-31.25	-20.07	-14.66	-8.77	1.93	18.52	35.10	45.80	51.69	57.10	68.28
50	-31.67	-20.46	-15.03	-9.12	1.61	18.26	34.90	45.63	51.54	56.97	68.19
51	-31.51	-20.50	-15.17	-9.37	1.17	17.51	33.85	44.39	50.20	55.53	66.54
52	-32.85	-21.71	-16.32	-10.45	-2.1	16.74	33.27	43.93	49.79	55.19	66.32
53	-33.54	-22.17	-16.66	-10.66	-2.3	17.11	34.00	44.89	50.89	56.40	67.77
54	-29.93	-19.59	-13.34	-7.62	2.76	18.86	34.96	45.34	51.06	56.31	67.15
55	-27.79	-17.56	-12.61	-7.22	2.57	17.75	32.92	42.71	48.10	53.05	63.28
56	-28.68	-17.74	-12.48	-6.76	3.63	19.75	35.86	46.25	51.97	57.23	68.09
57	-30.34	-18.54	-12.83	-6.61	4.68	22.19	39.70	51.00	57.21	62.93	74.72
58	-41.69	-27.33	-20.37	-12.80	-94	22.26	43.58	57.33	64.89	71.85	86.21
59	-39.47	-26.12	-19.65	-12.61	-17	19.99	39.81	52.59	59.63	66.09	79.44
60	-42.87	-28.65	-22.14	-15.07	-2.22	17.71	37.63	50.48	57.56	64.05	77.88
61	-37.88	-25.57	-19.60	-13.11	-1.32	16.96	35.24	47.03	53.52	59.48	71.80
62	-34.59	-23.18	-17.66	-11.65	-0.73	16.21	33.14	44.06	50.07	55.60	67.01
63	-31.59	-21.02	-15.91	-10.34	-0.23	15.46	31.14	41.25	46.82	51.93	62.50
64	-28.91	-18.73	-14.09	-8.94	-0.33	14.70	29.08	38.35	43.45	48.14	57.82
65	-25.57	-16.69	-12.39	-7.71	-0.79	13.97	27.14	35.64	40.32	44.62	53.50
66	-22.53	-14.55	-10.66	-6.82	1.28	13.21	25.15	32.85	37.08	40.98	48.02
67	-20.00	-12.71	-9.12	-5.34	1.64	12.46	23.28	30.26	34.11	37.64	44.93
68	-17.31	-10.81	-7.65	-4.21	2.03	11.71	21.39	27.63	31.07	34.22	40.75
69	-15.18	-9.31	-6.47	-3.37	2.25	10.96	19.67	25.29	28.39	31.23	37.10
70	-13.21	-7.95	-5.40	-2.63	2.40	10.21	18.02	23.05	25.82	28.37	33.63

TABLE 13.2. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS

105 DEGREE FLIGHT AZIMUTH

FEBRUARY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.39	-8.05	-6.92	-5.69	-3.45	.07	3.50	5.74	6.98	8.11	10.45
1	-16.27	-11.90	-9.78	-7.47	-3.28	3.21	9.71	13.97	16.21	18.33	22.70
2	-15.70	-11.26	-9.11	-6.76	-2.51	4.08	10.68	14.93	17.28	19.43	23.87
3	-16.72	-11.76	-9.35	-6.74	-1.99	5.37	12.74	17.49	20.10	22.51	27.47
4	-17.37	-11.96	-9.34	-6.49	-1.31	6.71	14.74	19.91	22.76	25.38	30.79
5	-19.02	-12.93	-9.98	-6.77	-.95	8.09	17.12	22.95	26.16	29.11	35.20
6	-20.08	-13.38	-10.14	-6.62	-.21	9.72	19.66	26.06	29.59	32.83	39.52
7	-22.22	-14.75	-11.13	-7.19	-.04	11.06	22.15	29.30	33.24	36.86	44.33
8	-24.62	-16.36	-12.36	-7.00	-.10	12.17	24.43	32.34	36.69	40.69	48.95
9	-27.33	-18.19	-13.76	-6.95	-.20	13.37	26.93	35.63	40.50	44.93	54.07
10	-30.64	-20.59	-15.71	-7.04	-.78	14.15	29.08	38.70	44.01	48.88	58.94
11	-33.53	-22.63	-17.35	-7.60	-1.16	15.02	31.20	41.63	47.38	52.66	63.56
12	-32.05	-21.30	-16.00	-7.04	-.17	15.83	31.78	42.08	47.74	52.95	63.70
13	-27.62	-17.89	-13.17	-6.04	1.24	15.74	30.19	39.51	44.65	49.36	59.10
14	-23.48	-14.95	-10.82	-6.33	1.84	14.50	27.16	35.22	39.82	43.95	52.48
15	-19.09	-11.97	-8.53	-4.78	2.03	12.49	23.15	29.96	33.71	37.15	44.26
16	-16.56	-10.38	-7.39	-4.13	1.79	10.96	20.13	26.05	29.30	32.30	38.48
17	-14.78	-9.54	-7.01	-4.25	.77	3.54	16.31	21.32	24.08	26.62	31.86
18	-13.88	-9.38	-7.20	-4.83	-.52	8.16	12.84	17.15	19.52	21.70	26.20
19	-12.32	-8.60	-6.79	-4.83	-1.26	4.27	9.30	13.37	15.34	17.14	20.87
20	-12.16	-8.85	-7.25	-5.50	-2.33	2.58	7.49	10.66	12.41	14.01	17.32
21	-14.24	-10.80	-9.14	-7.33	-4.05	1.05	6.15	9.43	11.24	12.91	16.34
22	-13.50	-10.43	-8.94	-7.31	-4.37	.20	4.77	7.72	9.34	10.83	13.91
23	-13.33	-10.28	-8.80	-7.19	-4.27	.27	4.80	7.72	9.33	10.81	13.86
24	-12.58	-9.65	-8.27	-6.69	-3.89	.45	4.79	7.60	9.14	10.55	13.48
25	-12.57	-10.02	-8.59	-7.03	-4.20	.18	4.57	7.40	8.96	10.39	13.34
26	-13.22	-10.16	-8.68	-7.07	-4.14	.40	4.94	7.87	9.48	10.96	14.02
27	-13.13	-10.03	-8.52	-6.89	-3.41	.70	5.30	8.28	9.91	11.42	14.52
28	-9.99	-6.98	-5.52	-3.93	-1.05	3.43	7.90	10.79	12.38	13.84	16.85
29	-11.90	-8.24	-6.47	-4.54	-1.03	4.40	9.83	13.33	15.26	17.03	20.69
30	-12.26	-8.11	-6.10	-3.92	.05	6.20	12.36	16.32	18.51	20.52	24.66
31	-11.21	-6.98	-4.93	-2.69	1.36	7.64	13.93	17.98	20.21	22.26	26.49
32	-11.81	-7.09	-4.80	-2.31	2.21	9.22	16.24	20.76	23.25	25.54	30.26
33	-12.95	-8.33	-6.08	-3.64	.79	7.66	14.53	18.96	21.40	23.64	28.27
34	-15.09	-10.43	-6.18	-5.72	-1.26	5.66	12.57	17.04	19.49	21.75	26.41
35	-19.33	-13.83	-11.16	-8.26	-2.99	5.18	13.35	18.62	21.52	24.19	29.69
36	-18.56	-13.18	-10.57	-7.73	-2.58	5.41	13.41	18.56	21.40	24.00	29.39
37	-17.92	-12.59	-10.16	-7.40	-2.40	5.36	13.12	18.12	20.88	23.41	28.64
38	-18.25	-12.94	-10.37	-7.57	-2.49	5.39	13.28	18.36	21.16	23.73	29.04
39	-20.23	-14.46	-11.67	-8.62	-3.10	5.46	14.03	19.55	22.59	25.39	31.16
40	-21.73	-15.51	-12.50	-9.23	-3.28	5.95	15.18	21.13	24.40	27.41	33.63
41	-24.00	-16.88	-13.43	-9.67	-2.85	7.72	18.29	25.11	28.87	32.32	39.44
42	-24.86	-16.76	-13.33	-9.59	-2.80	9.73	20.26	27.05	30.79	34.23	41.32
43	-23.47	-15.68	-11.91	-7.80	-.35	11.21	22.77	30.23	34.33	38.10	45.89
44	-25.65	-17.01	-12.83	-8.27	.00	12.83	25.65	33.93	38.48	42.67	51.31
45	-22.76	-14.20	-10.05	-5.54	2.65	15.35	28.05	36.24	40.75	44.90	53.46
46	-22.46	-13.61	-9.32	-4.65	3.82	16.96	30.10	38.57	43.23	47.52	56.37
47	-21.97	-13.09	-8.79	-4.11	4.40	17.58	30.76	39.26	43.94	48.25	57.13
48	-18.95	-10.73	-6.75	-2.42	5.45	17.65	29.86	37.73	42.06	46.04	54.26
49	-17.31	-9.36	-5.51	-1.33	6.28	18.08	29.87	37.48	41.66	45.51	53.46
50	-17.60	-9.61	-5.74	-1.52	6.13	17.99	29.86	37.51	41.73	45.60	53.59
51	-19.60	-11.08	-6.95	-2.45	5.71	18.37	31.02	39.18	43.68	47.81	56.33
52	-22.27	-13.01	-8.52	-3.64	5.23	18.97	32.72	41.58	46.46	50.95	60.21
53	-22.50	-13.07	-8.50	-3.53	5.50	19.50	33.50	42.53	47.50	52.06	61.50
54	-22.73	-13.37	-10.36	-4.90	5.01	20.38	35.75	45.66	51.12	56.13	66.49
55	-27.55	-16.38	-10.97	-5.09	5.60	22.18	38.76	49.45	55.33	60.74	71.91
56	-22.05	-17.47	-11.87	-5.76	5.32	22.50	39.68	50.77	56.87	62.48	74.05
57	-34.61	-21.67	-15.40	-8.58	3.81	23.02	42.23	54.62	61.44	67.71	80.65
58	-24.39	-13.78	-8.64	-3.05	7.10	22.45	38.59	48.75	54.34	59.48	70.09
59	-12.03	-3.54	.57	5.04	13.17	25.77	38.37	46.50	50.97	55.08	63.57
60	-18.27	-4.67	.02	5.04	14.23	28.48	42.73	51.92	56.98	61.63	71.23
61	-20.22	-9.46	-4.25	1.41	11.71	27.67	43.63	53.93	59.60	64.80	75.56
62	-20.06	-9.52	-4.42	1.13	11.21	26.85	42.48	52.56	58.12	63.22	73.75
63	-28.18	-9.81	-4.78	.69	10.63	26.03	41.44	51.38	56.85	61.87	72.25
64	-28.02	-9.86	-4.94	.42	10.14	25.22	40.30	50.02	55.38	60.30	70.46
65	-28.12	-10.12	-5.27	-.00	9.57	24.41	39.25	48.82	54.09	58.93	68.93
66	-20.22	-10.39	-5.62	-.43	8.98	23.59	38.19	47.61	52.79	57.56	67.40
67	-20.06	-10.44	-5.78	-.71	8.50	22.77	37.05	46.26	51.33	55.98	65.60
68	-20.19	-10.72	-6.14	-1.15	7.91	21.96	36.01	45.07	50.06	54.64	64.11
69	-28.83	-10.79	-6.31	-1.44	7.41	21.14	34.86	43.71	48.58	53.06	62.30
70	-29.13	-11.05	-6.65	-1.86	6.84	20.32	33.81	42.51	47.30	51.70	60.78

TABLE 13.3. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

MARCH

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-10.58	-8.21	-7.01	-5.81	-3.55	-0.03	3.48	5.75	7.00	8.14	10.51
1	-16.12	-11.94	-9.92	-7.72	-3.72	2.48	8.67	12.57	14.37	16.39	21.07
2	-15.26	-11.10	-9.09	-6.90	-2.92	3.25	9.41	13.79	15.58	17.59	21.75
3	-16.36	-11.77	-9.55	-7.13	-2.74	4.07	10.88	15.27	17.09	19.01	24.50
4	-17.88	-12.82	-10.37	-7.71	-2.86	4.65	12.16	17.01	19.67	22.12	27.18
5	-18.98	-13.47	-10.80	-7.89	-2.62	5.56	13.74	19.02	21.33	24.59	30.11
6	-20.34	-14.22	-11.25	-8.04	-2.19	6.89	15.97	21.82	25.04	29.00	34.10
7	-22.48	-15.62	-12.23	-8.67	-2.11	9.08	18.27	24.94	29.45	31.73	39.64
8	-23.75	-16.37	-12.79	-9.91	-1.84	9.11	20.06	27.12	31.01	34.58	41.96
9	-27.94	-19.42	-15.29	-10.30	-2.64	10.00	22.65	30.80	35.29	39.42	47.34
10	-31.16	-21.71	-17.17	-12.15	-3.11	10.92	24.94	33.99	38.77	43.54	52.89
11	-35.43	-24.89	-19.73	-14.22	-4.12	11.54	27.19	37.29	42.55	47.96	58.51
12	-33.25	-22.99	-18.03	-12.62	-2.80	12.43	27.65	37.47	42.94	47.85	58.11
13	-27.57	-18.55	-14.14	-9.42	-0.79	17.60	25.99	34.63	39.38	43.75	52.77
14	-20.63	-13.40	-9.90	-6.08	0.84	11.58	22.32	29.24	33.67	36.50	43.79
15	-17.63	-11.32	-8.27	-4.94	1.10	10.47	19.43	25.97	30.20	32.25	34.56
16	-14.93	-9.56	-6.96	-4.12	1.00	8.97	16.94	22.07	24.70	27.50	32.67
17	-13.82	-9.02	-6.70	-4.17	0.42	7.54	14.66	19.25	21.73	24.10	24.90
18	-12.80	-8.73	-6.70	-4.60	-0.70	5.36	11.41	15.71	17.46	19.44	23.62
19	-12.06	-8.61	-6.34	-5.12	-1.82	3.30	8.43	11.73	13.55	15.22	14.67
20	-11.75	-8.69	-7.27	-5.61	-2.68	1.85	6.39	9.71	10.72	12.40	11.45
21	-11.70	-8.92	-7.57	-6.10	-3.44	0.70	4.83	7.49	8.35	10.31	11.03
22	-12.28	-9.45	-8.08	-6.60	-3.89	0.30	4.49	7.19	8.08	10.05	12.87
23	-12.41	-9.67	-8.34	-6.90	-4.27	-0.70	3.87	6.49	7.34	9.27	12.01
24	-13.18	-10.31	-8.92	-7.40	-4.65	-0.39	3.87	6.62	8.14	9.53	12.40
25	-12.92	-10.11	-8.75	-7.27	-4.57	-0.40	3.77	6.46	7.95	9.31	12.17
26	-12.77	-9.96	-8.60	-7.12	-4.43	-0.26	3.91	6.60	8.08	9.44	12.25
27	-13.78	-10.72	-9.24	-7.63	-4.71	-0.18	4.36	7.29	8.33	10.37	11.42
28	-8.88	-5.91	-4.52	-3.00	-0.24	0.04	8.32	11.08	12.60	14.00	16.88
29	-8.77	-5.71	-4.23	-2.61	0.32	4.87	9.41	12.34	13.96	15.44	18.50
30	-9.65	-6.35	-4.75	-3.01	0.15	5.04	9.94	13.10	14.84	16.43	19.73
31	-11.84	-8.00	-6.18	-4.12	-0.44	5.26	10.97	14.64	16.67	18.53	22.37
32	-14.57	-10.17	-8.04	-5.72	-1.51	5.02	11.56	15.77	18.09	20.22	24.62
33	-15.15	-10.77	-8.65	-6.34	-2.15	4.34	10.84	15.03	17.34	19.46	23.84
34	-15.44	-11.05	-8.93	-6.62	-2.42	4.09	10.60	14.80	17.11	19.24	23.62
35	-16.66	-13.67	-11.26	-8.64	-3.87	3.53	10.92	15.69	18.32	20.73	25.71
36	-19.19	-14.08	-11.60	-8.90	-4.00	3.59	11.19	16.09	18.78	21.26	26.38
37	-18.53	-13.55	-11.14	-8.52	-3.75	3.64	11.02	15.79	18.41	20.82	25.80
38	-19.72	-14.55	-12.05	-9.33	-4.38	3.29	10.96	15.91	18.63	21.13	26.30
39	-20.06	-14.74	-12.16	-9.35	-4.25	3.65	11.55	16.65	19.46	22.04	27.36
40	-22.00	-16.12	-13.28	-10.18	-4.55	4.18	12.90	18.53	21.63	24.48	30.36
41	-24.93	-18.33	-15.14	-11.66	-5.34	4.46	14.26	20.58	24.06	27.25	33.85
42	-23.93	-17.33	-14.13	-10.64	-4.32	5.49	15.30	21.62	25.11	28.31	34.92
43	-19.43	-15.45	-12.32	-8.90	-2.70	6.92	16.53	22.73	26.15	29.28	35.76
44	-19.43	-13.19	-10.17	-6.88	-0.90	8.37	17.63	23.61	26.90	29.92	36.17
45	-16.61	-10.77	-7.93	-4.85	0.74	9.41	18.09	23.68	26.76	29.60	35.44
46	-15.38	-9.56	-6.74	-3.68	1.89	10.52	19.15	24.71	27.78	30.60	36.41
47	-14.06	-8.22	-5.40	-2.32	3.26	11.92	20.58	26.16	29.24	32.06	37.90
48	-12.61	-6.90	-4.13	-1.12	4.35	12.84	21.32	26.79	29.80	32.57	38.29
49	-13.77	-7.59	-4.60	-1.34	4.57	13.74	22.92	28.63	32.09	35.08	41.26
50	-12.59	-6.57	-3.66	-0.49	5.26	14.18	23.11	28.86	32.03	34.94	40.95
51	-12.99	-6.81	-3.85	-0.62	5.25	14.35	23.44	29.31	32.54	35.51	41.63
52	-14.54	-8.04	-4.89	-1.46	4.76	14.41	24.06	30.29	33.71	36.86	43.36
53	-16.41	-9.68	-6.42	-2.87	3.57	13.56	23.55	29.99	33.54	36.80	43.53
54	-16.76	-9.98	-6.70	-3.12	3.37	13.43	23.50	29.95	33.56	36.85	43.63
55	-17.80	-10.73	-7.30	-3.58	3.19	13.68	24.18	30.95	34.67	38.10	45.17
56	-10.24	-4.62	-1.90	1.07	6.45	14.79	23.14	28.52	31.49	34.21	39.83
57	-7.62	-2.25	0.35	3.18	8.33	16.30	24.27	29.41	32.24	34.84	40.21
58	-12.59	-6.09	-2.93	0.50	6.73	16.38	26.04	32.27	35.70	38.85	45.36
59	-9.77	-3.08	0.16	3.69	10.10	20.04	29.97	36.38	39.91	43.15	49.85
60	-6.51	0.56	3.98	7.71	14.48	24.97	35.46	42.23	45.95	49.38	56.45
61	-12.23	-4.07	-0.11	4.20	12.02	24.16	36.38	44.12	48.43	52.40	60.57
62	-12.69	-4.60	-0.68	3.59	11.33	23.34	35.35	43.10	47.36	51.28	59.37
63	-13.39	-5.32	-1.41	2.84	10.56	22.53	34.50	42.23	46.48	50.38	58.45
64	-13.83	-5.85	-1.98	2.23	9.87	21.71	33.56	41.20	45.40	49.27	57.25
65	-14.26	-6.36	-2.58	1.62	9.18	20.90	32.62	40.18	44.34	48.17	56.06
66	-14.69	-6.88	-3.09	1.02	8.50	20.09	31.69	39.16	43.28	47.06	54.87
67	-15.13	-7.41	-3.66	0.41	7.80	19.27	30.74	38.14	42.21	45.95	53.68
68	-15.84	-8.14	-4.40	-0.34	7.03	18.46	29.80	37.27	41.33	45.06	52.76
69	-16.28	-8.67	-4.98	-0.96	6.33	17.64	28.95	36.25	40.26	43.95	51.57
70	-16.72	-9.19	-5.54	-1.56	5.65	16.83	28.02	35.23	39.20	42.85	50.39

TABLE 13.4. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

APRIL

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.22	-7.11	-6.05	-4.98	-2.96	.17	3.30	5.71	6.42	7.45	9.55
1	-14.86	-11.21	-9.44	-7.52	-4.03	1.39	6.80	10.30	12.22	13.99	17.64
2	-15.42	-11.71	-9.92	-7.97	-4.42	1.08	6.58	10.17	12.08	13.87	17.58
3	-18.91	-13.77	-11.72	-9.43	-5.43	.85	7.14	11.20	13.43	15.44	19.72
4	-19.82	-15.12	-12.85	-10.37	-5.87	1.10	8.08	12.58	15.05	17.33	22.03
5	-20.47	-15.52	-13.13	-10.52	-5.78	1.57	9.92	13.66	16.27	18.66	23.61
6	-22.22	-16.79	-14.17	-11.50	-6.10	1.96	10.01	15.21	18.67	20.70	25.13
7	-23.52	-18.50	-15.59	-12.41	-6.64	2.30	11.23	17.00	20.17	23.09	29.11
8	-26.63	-20.11	-16.92	-13.45	-7.14	2.63	12.41	18.71	22.18	25.37	31.96
9	-30.67	-23.10	-19.43	-15.44	-7.19	3.04	14.28	21.53	25.52	29.19	36.76
10	-35.82	-27.03	-22.78	-18.15	-8.74	3.30	16.34	24.74	29.37	33.63	42.41
11	-39.95	-30.20	-25.47	-20.34	-11.00	3.48	17.96	27.29	32.44	37.16	46.92
12	-42.90	-32.43	-27.36	-21.84	-11.82	3.71	19.25	29.27	34.78	39.85	50.32
13	-45.95	-34.98	-29.19	-23.98	-10.53	4.14	18.80	29.26	33.46	38.25	48.13
14	-48.25	-36.64	-31.47	-26.93	-9.68	4.10	16.88	25.13	29.67	33.84	42.45
15	-50.92	-39.33	-34.62	-29.96	-8.32	3.98	14.28	20.92	24.58	27.94	34.88
16	-53.37	-41.43	-36.56	-31.47	-7.14	3.08	11.90	17.58	20.71	23.59	29.53
17	-55.64	-43.51	-38.03	-33.02	-6.41	2.21	9.82	14.73	17.44	19.92	25.05
18	-57.26	-45.17	-39.03	-34.03	-5.11	.97	7.04	10.96	13.12	15.10	19.20
19	-58.18	-46.73	-40.06	-35.24	-4.94	.18	5.30	8.60	10.42	12.09	15.54
20	-59.13	-48.04	-41.04	-36.54	-4.95	.36	4.22	7.18	8.81	10.31	13.40
21	-60.10	-49.34	-42.07	-37.85	-4.90	-1.11	2.69	5.14	6.49	7.72	10.28
22	-61.15	-50.64	-43.12	-39.12	-4.69	-1.26	2.17	4.38	5.60	6.72	9.03
23	-62.18	-51.93	-44.17	-40.39	-4.69	-1.45	1.79	3.88	5.03	6.09	8.28
24	-63.18	-53.22	-45.42	-41.66	-4.66	-1.60	1.96	4.20	5.43	6.55	8.89
25	-64.15	-54.51	-46.67	-42.93	-4.63	-1.49	2.20	4.58	5.89	7.09	9.59
26	-65.12	-55.80	-47.92	-44.20	-4.60	-1.28	2.43	4.83	6.15	7.36	9.86
27	-66.08	-57.09	-49.17	-45.47	-4.57	-1.09	2.73	5.19	6.55	7.79	10.37
28	-67.05	-58.38	-50.42	-46.74	-4.54	-1.09	3.11	5.59	6.92	8.16	10.88
29	-68.02	-59.67	-51.67	-48.01	-4.51	1.52	5.62	6.26	7.72	8.95	11.81
30	-69.00	-60.96	-52.92	-49.28	-4.48	1.85	6.45	6.92	8.42	9.74	12.74
31	-70.00	-62.25	-54.17	-50.55	-4.45	2.16	6.95	7.58	9.09	10.49	13.67
32	-71.00	-63.54	-55.42	-51.82	-4.42	2.46	7.48	8.24	9.74	11.24	14.60
33	-72.00	-64.83	-56.67	-53.09	-4.39	2.77	7.99	8.89	10.39	11.99	15.53
34	-73.00	-66.12	-57.92	-54.36	-4.36	3.08	8.50	9.54	11.04	12.74	16.46
35	-74.00	-67.41	-59.17	-55.63	-4.33	3.39	9.01	10.19	11.69	13.49	17.39
36	-75.00	-68.70	-60.42	-56.90	-4.30	3.70	9.52	10.84	12.34	14.24	18.32
37	-76.00	-70.00	-61.67	-58.17	-4.27	4.01	10.03	11.49	12.99	14.99	19.25
38	-77.00	-71.29	-62.92	-59.44	-4.24	4.32	10.54	12.14	13.64	15.74	20.18
39	-78.00	-72.58	-64.17	-60.71	-4.21	4.63	11.05	12.79	14.29	16.49	21.11
40	-79.00	-73.87	-65.42	-61.98	-4.18	4.94	11.56	13.44	14.94	17.24	22.04
41	-80.00	-75.16	-66.67	-63.25	-4.15	5.25	12.07	14.09	15.59	17.99	22.97
42	-81.00	-76.45	-67.92	-64.52	-4.12	5.56	12.58	14.74	16.24	18.74	23.90
43	-82.00	-77.74	-69.17	-65.79	-4.09	5.87	13.09	15.39	16.89	19.49	24.83
44	-83.00	-79.03	-70.42	-67.06	-4.06	6.18	13.60	16.04	17.54	20.24	25.76
45	-84.00	-80.32	-71.67	-68.33	-4.03	6.49	14.11	16.69	18.19	20.99	26.69
46	-85.00	-81.61	-72.92	-69.60	-4.00	6.80	14.62	17.34	18.84	21.74	27.62
47	-86.00	-82.90	-74.17	-70.87	-3.97	7.11	15.13	17.99	19.49	22.49	28.55
48	-87.00	-84.19	-75.42	-72.14	-3.94	7.42	15.64	18.64	20.14	23.24	29.48
49	-88.00	-85.48	-76.67	-73.41	-3.91	7.73	16.15	19.29	20.79	23.99	30.41
50	-89.00	-86.77	-77.92	-74.68	-3.88	8.04	16.66	19.94	21.44	24.74	31.34
51	-90.00	-88.06	-79.17	-75.95	-3.85	8.35	17.17	20.59	22.09	25.49	32.27
52	-91.00	-89.35	-80.42	-77.22	-3.82	8.66	17.68	21.24	22.74	26.24	33.20
53	-92.00	-90.64	-81.67	-78.49	-3.79	8.97	18.19	21.89	23.39	26.99	34.13
54	-93.00	-91.93	-82.92	-79.76	-3.76	9.28	18.70	22.54	24.04	27.74	35.06
55	-94.00	-93.22	-84.17	-81.03	-3.73	9.59	19.21	23.19	24.69	28.49	35.99
56	-95.00	-94.51	-85.42	-82.30	-3.70	9.90	19.72	23.84	25.34	29.24	36.92
57	-96.00	-95.80	-86.67	-83.57	-3.67	10.21	20.23	24.49	25.99	30.00	37.85
58	-97.00	-97.09	-87.92	-84.84	-3.64	10.52	20.74	25.14	26.64	30.75	38.78
59	-98.00	-98.38	-89.17	-86.11	-3.61	10.83	21.25	25.79	27.29	31.50	39.71
60	-99.00	-99.67	-90.42	-87.38	-3.58	11.14	21.76	26.44	27.94	32.25	40.64
61	-100.00	-100.96	-91.67	-88.65	-3.55	11.45	22.27	27.09	28.59	33.00	41.57
62	-101.00	-102.25	-92.92	-89.92	-3.52	11.76	22.78	27.74	29.24	33.75	42.50
63	-102.00	-103.54	-94.17	-91.19	-3.49	12.07	23.29	28.39	29.89	34.50	43.43
64	-103.00	-104.83	-95.42	-92.46	-3.46	12.38	23.80	29.04	30.54	35.25	44.36
65	-104.00	-106.12	-96.67	-93.73	-3.43	12.69	24.31	29.69	31.19	36.00	45.29
66	-105.00	-107.41	-97.92	-95.00	-3.40	13.00	24.82	30.34	31.84	36.75	46.22
67	-106.00	-108.70	-99.17	-96.27	-3.37	13.31	25.33	30.99	32.49	37.50	47.15
68	-107.00	-110.00	-100.42	-97.54	-3.34	13.62	25.84	31.64	33.14	38.25	48.08
69	-108.00	-111.29	-101.67	-98.81	-3.31	13.93	26.35	32.29	33.79	39.00	49.01
70	-109.00	-112.58	-102.92	-100.08	-3.28	14.24	26.86	32.94	34.44	39.75	49.94

TABLE 13.5. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

MAY

Cumulative Percentage Probability											
Alt (km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-7.59	-5.85	-5.00	-4.08	-2.42	-1.7	2.75	4.42	5.34	6.19	7.93
1	-12.85	-9.81	-8.34	-6.73	-3.83	-2.9	5.20	8.11	9.71	11.12	14.22
2	-15.20	-11.82	-10.13	-8.40	-5.16	-3.14	4.87	8.11	9.83	11.53	14.91
3	-16.19	-12.56	-10.80	-8.89	-5.41	-3.03	5.36	8.87	10.74	12.50	16.13
4	-17.60	-13.60	-11.67	-9.55	-5.73	-2.1	6.15	9.08	12.00	14.07	18.22
5	-18.65	-14.36	-12.28	-10.02	-5.92	-1.45	6.82	10.93	13.10	15.26	19.55
6	-20.76	-15.95	-13.02	-11.08	-6.47	-0.68	7.92	12.43	14.77	17.30	22.12
7	-23.19	-17.74	-15.10	-12.32	-7.00	1.09	9.18	14.46	17.07	19.92	25.37
8	-25.69	-19.54	-16.57	-13.33	-7.44	1.69	10.31	16.69	19.30	22.91	29.02
9	-28.63	-22.70	-19.24	-15.48	-8.66	1.93	12.51	19.34	23.10	26.55	33.68
10	-34.35	-26.13	-22.15	-17.32	-9.95	2.26	14.46	22.33	26.60	30.04	39.86
11	-39.18	-29.80	-25.26	-20.32	-11.35	2.60	16.47	25.45	30.33	34.92	44.20
12	-43.01	-32.73	-27.75	-22.33	-12.49	3.77	18.03	27.87	33.20	38.27	49.55
13	-43.20	-33.01	-28.07	-22.70	-12.94	2.19	17.32	27.08	32.47	37.38	47.58
14	-37.43	-28.92	-24.01	-19.32	-11.40	1.52	15.03	23.56	28.00	32.58	41.40
15	-31.26	-24.09	-20.62	-16.83	-9.97	-0.68	11.33	19.19	21.67	25.45	32.62
16	-25.23	-19.67	-16.95	-13.93	-8.61	-2.27	9.00	13.44	16.40	19.12	24.73
17	-21.01	-16.54	-14.37	-12.01	-7.72	-1.07	5.57	9.86	12.02	14.39	19.87
18	-17.05	-13.58	-11.90	-10.07	-6.75	-1.60	3.55	6.87	3.70	10.35	12.35
19	-13.51	-10.84	-9.55	-8.14	-5.58	-1.61	2.35	4.71	6.32	7.61	10.20
20	-11.81	-9.58	-8.50	-7.32	-5.19	-1.83	1.44	3.57	4.75	5.92	8.28
21	-10.40	-8.48	-7.57	-6.54	-4.70	-1.86	.99	2.83	3.84	4.77	6.68
22	-10.71	-8.78	-7.84	-6.83	-4.98	-2.11	.75	2.60	3.62	4.50	6.47
23	-10.67	-8.75	-7.82	-6.81	-4.98	-2.13	.72	2.55	3.50	4.40	6.41
24	-11.31	-9.27	-8.28	-7.21	-5.26	-2.23	.80	2.75	3.32	4.31	6.35
25	-11.91	-9.78	-8.75	-7.63	-5.59	-2.43	.73	2.77	3.35	4.30	7.40
26	-12.29	-10.07	-8.99	-7.82	-5.70	-2.41	.83	3.00	4.27	5.25	7.40
27	-12.37	-10.13	-9.07	-7.87	-5.72	-2.40	.83	3.07	4.25	5.24	7.52
28	-11.10	-8.92	-7.84	-6.67	-4.55	-1.26	2.04	4.16	5.33	6.40	8.62
29	-11.82	-9.35	-8.15	-6.85	-4.48	-1.81	2.86	5.22	6.53	7.72	10.19
30	-13.39	-10.55	-9.17	-7.68	-4.96	-1.75	3.47	6.18	7.68	9.05	11.89
31	-13.45	-10.61	-9.23	-7.74	-5.02	-1.81	3.41	6.13	7.62	9.00	11.84
32	-13.53	-10.54	-9.09	-7.51	-4.64	-1.20	4.25	7.11	8.69	10.14	13.14
33	-15.55	-12.18	-10.56	-8.78	-5.57	-1.58	4.41	7.63	9.40	11.03	14.39
34	-15.71	-12.39	-10.79	-9.04	-5.87	-1.96	3.96	7.13	8.88	10.48	13.80
35	-17.51	-13.91	-12.17	-10.27	-6.83	-1.49	3.85	7.29	9.18	10.92	14.52
36	-18.26	-14.64	-12.89	-10.98	-7.51	-2.14	3.24	6.71	8.62	10.37	13.99
37	-18.72	-13.35	-11.72	-9.95	-6.73	-1.74	3.25	6.47	8.25	9.88	13.24
38	-18.16	-12.07	-10.57	-8.94	-5.98	-1.39	3.20	6.16	7.79	9.28	12.38
39	-15.87	-12.68	-11.13	-9.45	-6.39	-1.65	3.09	6.15	7.83	9.38	12.58
40	-17.64	-14.25	-12.60	-10.82	-7.57	-2.53	2.51	5.76	7.55	9.20	12.59
41	-18.91	-15.32	-13.58	-11.69	-8.25	-2.92	2.41	5.85	7.74	9.48	13.08
42	-17.61	-14.15	-12.48	-10.66	-7.35	-2.22	2.90	6.21	8.03	9.70	13.16
43	-20.29	-16.10	-14.07	-11.86	-7.85	-1.63	4.58	8.60	10.80	12.83	17.02
44	-18.61	-14.94	-13.06	-11.02	-7.32	-1.57	4.18	7.88	9.32	11.80	15.67
45	-19.57	-15.49	-13.52	-11.37	-7.47	-1.42	4.63	8.53	10.68	12.66	16.73
46	-20.38	-16.12	-14.06	-11.81	-7.74	-1.42	4.90	8.97	11.22	13.28	17.54
47	-21.04	-16.46	-14.24	-11.83	-7.45	-1.65	6.15	10.53	12.95	15.17	19.75
48	-22.55	-17.76	-15.45	-12.92	-8.34	-1.24	5.86	10.44	12.96	15.28	20.06
49	-23.84	-18.89	-16.50	-13.89	-9.15	-1.80	5.55	10.29	12.90	15.30	20.25
50	-23.26	-18.28	-15.87	-13.25	-8.48	-1.09	6.29	11.06	13.68	16.09	21.07
51	-23.35	-18.25	-15.78	-13.09	-8.21	-1.63	6.94	11.82	14.51	16.90	22.08
52	-24.58	-19.25	-16.67	-13.86	-8.76	-1.85	7.06	12.16	14.96	17.54	22.87
53	-25.20	-19.72	-17.06	-14.17	-8.93	-1.79	7.34	12.59	15.47	18.13	23.61
54	-25.57	-19.91	-17.17	-14.18	-8.77	-1.37	8.04	13.45	16.44	19.18	24.84
55	-26.29	-20.56	-17.79	-14.77	-9.28	-1.78	7.73	13.21	16.23	19.01	24.74
56	-24.47	-22.31	-19.33	-16.08	-10.19	-1.05	8.10	13.99	17.24	20.22	26.38
57	-32.80	-25.58	-22.08	-18.27	-11.36	-1.64	10.08	16.99	20.79	24.29	31.51
58	-38.32	-30.17	-26.22	-21.92	-14.12	-2.02	10.08	17.89	22.18	26.13	34.28
59	-37.58	-29.73	-25.93	-21.79	-14.27	-2.62	9.03	16.55	20.68	24.49	32.34
60	-45.65	-35.98	-31.30	-26.20	-16.94	-2.59	11.77	21.03	26.12	30.81	40.48
61	-40.60	-32.04	-27.89	-23.38	-15.19	-2.49	10.21	18.40	22.91	27.05	35.61
62	-38.06	-30.05	-26.17	-21.95	-14.28	-2.40	9.49	17.16	21.38	25.26	33.26
63	-35.80	-28.28	-24.68	-20.68	-13.48	-2.31	8.85	16.05	20.01	23.66	31.18
64	-33.24	-26.27	-22.90	-19.23	-12.56	-2.22	8.12	14.79	18.46	21.84	28.80
65	-30.97	-24.50	-21.36	-17.94	-11.74	-2.12	7.49	13.69	17.11	20.25	26.72
66	-28.44	-22.51	-19.64	-16.51	-10.83	-2.03	6.78	12.45	15.58	18.45	24.38
67	-25.88	-20.50	-17.90	-15.06	-9.92	-1.93	6.05	11.19	14.03	16.63	22.01
68	-23.62	-18.73	-16.36	-13.79	-9.11	-1.85	5.41	10.09	12.67	15.03	19.92
69	-21.33	-16.93	-14.80	-12.48	-8.28	-1.75	4.77	8.98	11.30	13.42	17.82
70	-18.88	-14.95	-13.08	-11.06	-7.37	-1.66	4.05	7.74	9.77	11.63	15.48

TABLE 13.6. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

JUNE

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-6.77	-5.10	-4.29	-3.41	-1.81	.67	3.15	4.75	5.63	6.44	8.11
1	-10.79	-7.96	-6.50	-5.05	-2.38	1.62	6.03	8.74	10.23	11.60	14.44
2	-11.37	-8.42	-7.00	-5.56	-2.90	1.49	5.77	8.54	10.06	11.45	14.34
3	-11.39	-8.51	-7.12	-5.60	-2.85	1.42	5.70	8.45	9.97	11.36	14.24
4	-11.09	-8.32	-7.04	-5.51	-3.06	1.35	5.76	8.61	10.13	11.52	14.59
5	-12.42	-9.76	-7.92	-6.32	-3.40	1.09	5.59	8.49	10.09	11.56	14.59
6	-13.77	-10.51	-8.94	-7.22	-4.10	.73	5.56	8.63	10.40	11.97	15.23
7	-15.28	-11.66	-9.94	-8.04	-4.60	.75	6.09	7.53	11.47	13.18	16.77
8	-17.46	-11.77	-11.28	-9.23	-5.31	.76	6.84	10.75	12.31	14.89	18.39
9	-20.67	-15.83	-13.40	-10.92	-6.26	.91	8.11	12.75	15.70	17.65	22.50
10	-24.19	-19.10	-15.40	-13.25	-7.71	.89	9.47	15.01	18.37	20.87	26.66
11	-29.39	-22.63	-19.76	-15.76	-9.32	.71	10.74	17.21	20.77	24.05	30.80
12	-35.08	-27.13	-23.35	-19.15	-11.01	.13	11.87	19.42	23.62	27.43	35.34
13	-37.24	-29.07	-25.11	-20.01	-12.99	-.87	11.26	19.06	23.38	27.34	35.51
14	-33.95	-26.96	-23.42	-17.59	-11.90	-2.37	9.16	14.95	18.69	22.12	29.22
15	-27.55	-22.22	-19.07	-16.82	-11.72	-3.80	4.12	9.22	12.03	14.62	19.95
16	-21.19	-17.27	-15.30	-13.32	-9.59	-3.90	2.00	5.73	7.79	9.69	13.58
17	-16.52	-13.66	-12.12	-10.58	-7.75	-3.77	1.02	3.85	5.40	6.83	9.79
18	-13.40	-11.12	-10.01	-8.91	-6.60	-3.24	.15	2.33	3.57	4.64	6.92
19	-11.98	-9.90	-8.97	-7.91	-5.97	-2.96	.05	1.92	3.06	4.04	6.06
20	-11.90	-9.87	-8.27	-7.21	-6.06	-2.13	-.32	1.53	2.55	3.49	5.43
21	-11.18	-9.87	-8.50	-7.56	-5.95	-3.20	-.54	1.17	2.11	2.98	4.77
22	-12.33	-10.36	-9.33	-8.31	-6.38	-3.36	-.38	1.50	2.62	3.60	5.63
23	-12.58	-10.67	-9.60	-8.54	-6.62	-3.63	-.65	1.28	2.74	3.71	5.32
24	-12.23	-10.35	-9.44	-8.44	-6.64	-3.34	-1.04	.76	1.76	2.67	4.55
25	-12.62	-10.73	-9.82	-8.82	-7.01	-4.20	-1.40	.41	1.41	2.72	4.21
26	-13.32	-11.31	-10.33	-9.37	-7.35	-4.36	-1.37	.55	1.61	2.59	4.60
27	-13.62	-11.59	-10.61	-9.54	-7.59	-4.58	-1.56	.39	1.46	2.44	4.47
28	-12.90	-10.43	-9.48	-8.44	-6.55	-3.63	-.70	1.18	2.22	3.18	5.15
29	-12.38	-10.62	-9.47	-8.43	-6.55	-3.64	-.72	1.16	2.19	3.14	5.11
30	-12.33	-10.28	-9.29	-8.21	-6.25	-3.20	-.16	1.80	2.88	3.88	5.93
31	-12.40	-10.27	-9.24	-8.11	-6.07	-2.90	.26	2.31	3.43	4.46	6.60
32	-15.02	-12.29	-10.97	-9.53	-6.91	-2.46	1.20	3.81	5.25	6.57	9.31
33	-14.21	-11.75	-10.57	-9.27	-6.92	-3.28	.36	2.71	4.00	5.19	7.64
34	-15.84	-13.16	-11.86	-10.45	-7.88	-3.90	.08	2.65	4.06	5.36	8.04
35	-16.59	-13.87	-12.55	-11.12	-8.51	-4.47	-.43	2.18	3.62	4.94	7.66
36	-17.98	-15.64	-13.27	-11.77	-9.05	-4.84	-.63	2.09	3.59	4.96	7.80
37	-18.24	-15.25	-13.81	-12.24	-9.38	-4.95	-.52	2.34	3.91	5.36	8.34
38	-18.29	-16.09	-14.54	-12.86	-9.81	-5.07	-.34	2.72	4.00	5.94	9.11
39	-20.61	-17.23	-15.60	-13.82	-10.58	-5.56	-.54	2.69	4.47	6.11	9.49
40	-21.90	-18.45	-16.79	-14.97	-11.67	-6.55	-1.44	1.86	3.68	5.35	9.79
41	-24.02	-20.29	-18.49	-16.52	-12.95	-7.41	-1.87	1.70	3.67	5.47	9.21
42	-21.85	-18.54	-17.08	-15.39	-12.32	-7.55	-2.78	.29	1.98	3.54	6.75
43	-22.01	-18.75	-17.18	-15.47	-12.35	-7.52	-2.70	.42	2.13	3.71	6.96
44	-21.60	-18.23	-16.59	-14.82	-11.59	-6.58	-1.58	1.65	3.43	5.06	8.43
45	-22.98	-19.17	-17.32	-15.31	-11.66	-6.00	-.34	3.31	5.32	7.17	10.98
46	-24.33	-20.11	-18.07	-15.84	-11.80	-5.53	.73	4.77	7.00	9.04	13.27
47	-25.12	-20.61	-18.42	-16.04	-11.72	-5.03	1.67	5.99	8.37	10.55	15.06
48	-26.06	-21.22	-18.87	-16.31	-11.67	-4.44	2.71	7.35	9.91	12.26	17.10
49	-27.76	-22.43	-19.85	-17.04	-11.94	-4.03	3.88	8.98	11.79	14.37	19.70
50	-26.61	-21.37	-18.83	-16.07	-11.05	-3.27	4.51	9.52	12.28	14.82	20.06
51	-26.77	-21.60	-18.94	-16.16	-11.11	-3.28	4.55	9.60	12.38	14.93	20.21
52	-25.43	-20.62	-18.29	-15.76	-11.16	-4.03	3.11	7.71	10.24	12.57	17.37
53	-26.03	-21.26	-18.94	-16.43	-11.86	-4.77	2.32	6.89	9.40	11.72	16.49
54	-29.37	-24.07	-21.51	-18.72	-13.65	-5.40	2.06	7.13	9.92	12.48	17.77
55	-32.66	-26.81	-23.97	-20.89	-15.29	-6.60	2.08	7.69	10.77	13.60	19.66
56	-34.70	-28.55	-25.57	-22.32	-16.44	-7.31	1.83	7.71	10.96	13.94	20.09
57	-35.03	-28.70	-25.64	-22.30	-16.24	-6.85	2.54	8.60	11.93	14.99	21.32
58	-39.33	-32.32	-28.93	-25.23	-18.52	-8.11	2.29	9.00	12.70	16.10	23.11
59	-37.12	-30.95	-27.96	-24.71	-18.80	-9.64	-.40	5.42	8.67	11.66	17.83
60	-39.74	-34.00	-30.76	-27.15	-23.78	-10.81	2.17	10.54	15.15	19.38	28.12
61	-43.90	-36.36	-32.71	-28.74	-21.52	-10.32	.87	8.09	12.06	15.71	23.26
62	-41.31	-34.23	-30.62	-27.10	-20.34	-9.85	.63	7.40	11.12	14.54	21.61
63	-39.43	-31.91	-28.75	-25.31	-19.06	-9.37	.32	6.56	10.00	13.16	19.69
64	-35.84	-29.79	-26.86	-23.67	-17.88	-8.90	.08	5.87	9.06	11.99	18.04
65	-33.24	-27.67	-24.97	-22.03	-16.70	-8.42	-.15	5.19	8.13	10.83	16.40
66	-30.64	-25.54	-23.08	-20.39	-15.51	-7.94	-.37	4.51	7.19	9.66	14.76
67	-28.05	-23.43	-21.19	-18.76	-14.33	-7.47	-.61	3.81	6.25	8.49	13.11
68	-25.18	-21.10	-19.12	-16.96	-13.05	-6.99	-.93	2.98	5.14	7.11	11.28
69	-22.59	-18.98	-17.23	-15.33	-11.88	-6.52	-1.16	2.29	4.20	5.94	9.58
70	-19.99	-16.86	-15.34	-13.69	-10.69	-6.04	-1.39	1.61	3.26	4.78	7.92

TABLE 13.7. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

JULY

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-4.23	-2.97	-2.28	-1.70	-1.11	1.37	3.23	4.43	5.00	5.70	6.06
1	-7.30	-4.39	-3.87	-2.65	-1.44	2.99	6.41	8.63	9.34	10.36	13.27
2	-8.55	-6.13	-4.05	-2.67	-1.35	2.24	5.64	8.16	9.44	10.61	17.04
3	-8.83	-6.43	-5.25	-3.36	-1.60	2.01	5.64	7.93	8.27	10.46	12.37
4	-9.77	-7.17	-5.97	-4.55	-2.07	1.79	5.64	8.12	9.46	10.74	13.34
5	-10.42	-7.79	-6.62	-4.15	-2.51	1.30	5.21	7.73	9.12	10.39	13.03
6	-11.70	-8.89	-7.57	-5.14	-3.34	.84	5.17	7.71	9.20	10.66	17.29
7	-13.00	-10.01	-8.57	-5.93	-4.13	.31	4.74	7.60	9.13	10.67	17.61
8	-15.06	-11.73	-10.12	-7.27	-5.18	-.25	4.69	7.87	9.03	11.24	14.56
9	-16.54	-14.63	-12.77	-10.63	-6.35	-.99	4.89	8.69	10.70	12.23	16.63
10	-22.04	-17.47	-15.07	-12.82	-8.49	-1.71	5.16	9.43	11.44	14.05	19.62
11	-25.19	-20.26	-17.73	-15.13	-11.17	-2.50	5.05	9.96	12.60	15.14	20.27
12	-26.45	-22.88	-20.17	-17.21	-11.07	-2.65	4.61	9.04	12.07	15.57	21.14
13	-31.23	-25.37	-22.57	-19.44	-13.33	-5.13	3.57	8.13	12.07	15.11	20.37
14	-25.77	-24.08	-21.52	-18.73	-11.67	-5.82	2.17	7.10	9.88	12.46	17.74
15	-23.39	-19.73	-17.77	-15.54	-11.55	-5.10	.37	4.94	7.15	9.13	13.53
16	-16.12	-15.00	-13.40	-11.24	-9.76	-4.23	.40	3.39	6.67	8.55	9.67
17	-14.55	-12.11	-10.97	-9.54	-7.20	-1.67	-.04	2.30	5.04	6.77	7.22
18	-12.09	-10.12	-8.14	-7.13	-5.24	-2.22	-.50	1.40	2.53	3.66	5.46
19	-11.13	-10.72	-8.72	-7.22	-5.77	-3.52	-.73	1.05	2.00	2.79	4.37
20	-11.88	-10.45	-8.31	-7.27	-5.73	-4.16	-1.59	.67	.79	1.72	2.50
21	-12.35	-10.55	-8.63	-7.72	-5.01	-4.74	-1.67	.05	1.00	1.37	3.67
22	-13.74	-11.67	-10.67	-8.58	-7.77	-4.57	-1.45	.52	1.01	1.67	4.67
23	-14.31	-11.17	-11.14	-10.01	-7.35	-4.79	-1.61	.43	1.36	2.97	4.74
24	-17.70	-12.77	-10.74	-9.82	-7.25	-5.10	-2.06	-.41	.60	1.32	3.46
25	-14.23	-12.23	-11.35	-10.13	-7.47	-5.53	-3.70	-.34	.19	1.13	3.07
26	-14.83	-12.91	-11.62	-10.76	-8.82	-5.81	-2.60	-.80	.21	1.19	3.21
27	-15.91	-13.70	-12.62	-11.40	-9.34	-6.05	-2.76	-.64	.53	1.00	3.97
28	-16.12	-14.01	-12.99	-11.88	-9.87	-6.74	-3.62	-1.60	-.43	.53	2.63
29	-14.89	-12.91	-11.95	-10.91	-9.01	-6.08	-3.14	-1.24	-.20	.76	2.74
30	-15.72	-13.86	-12.36	-11.17	-9.01	-5.65	-2.30	-.13	1.06	2.15	4.42
31	-15.90	-13.52	-12.37	-11.11	-8.83	-5.29	-1.75	.53	1.79	2.94	5.33
32	-15.77	-13.25	-12.10	-10.81	-8.45	-4.80	-1.15	1.20	2.50	3.69	6.15
33	-15.77	-13.42	-12.18	-10.85	-8.51	-4.88	-1.24	1.10	2.39	3.57	6.02
34	-17.01	-14.41	-13.15	-11.78	-9.29	-5.43	-1.58	.91	2.28	3.54	6.14
35	-18.19	-15.41	-14.07	-12.61	-9.95	-5.83	-1.72	.94	2.40	3.75	6.52
36	-18.89	-16.07	-14.70	-13.21	-10.51	-6.31	-2.12	.58	2.07	3.44	6.26
37	-22.04	-18.76	-17.17	-15.44	-12.30	-7.42	-2.55	.59	2.32	3.91	7.19
38	-23.30	-19.73	-18.01	-16.12	-12.71	-7.41	-2.12	1.30	3.18	4.91	8.48
39	-24.32	-20.56	-18.74	-16.76	-13.17	-7.59	-2.01	1.59	3.57	5.79	9.15
40	-25.59	-21.79	-19.95	-17.94	-14.30	-8.66	-3.01	.63	2.63	4.47	8.27
41	-26.58	-22.73	-20.87	-18.85	-15.17	-9.47	-3.76	-.09	1.94	3.80	7.64
42	-25.80	-22.25	-20.54	-18.67	-15.27	-10.01	-4.74	-1.35	.52	2.24	5.79
43	-27.01	-23.33	-21.55	-19.62	-16.10	-10.65	-5.19	-1.68	.26	2.04	5.71
44	-28.69	-24.55	-22.55	-20.37	-16.41	-10.27	-4.13	-.17	2.01	4.02	8.15
45	-28.68	-24.29	-22.16	-19.85	-15.65	-9.13	-2.62	1.58	3.90	6.02	10.41
46	-29.30	-24.60	-22.32	-19.84	-15.34	-8.37	-1.39	3.11	5.59	7.97	12.57
47	-27.66	-23.23	-21.08	-18.74	-14.50	-7.92	-1.35	2.89	5.23	7.38	11.81
48	-28.71	-23.99	-21.56	-19.01	-14.40	-7.24	-.08	4.53	7.08	9.41	14.23
49	-29.78	-24.60	-22.09	-19.36	-14.11	-6.72	.96	5.92	8.65	11.15	16.33
50	-30.66	-25.22	-22.58	-19.71	-14.50	-6.42	1.66	6.87	9.74	12.37	17.82
51	-30.52	-25.18	-22.60	-19.79	-14.69	-6.78	1.14	6.24	9.05	11.63	16.96
52	-31.98	-26.40	-23.69	-20.75	-15.40	-7.11	1.18	6.53	9.47	12.18	17.77
53	-35.13	-28.80	-25.73	-22.39	-16.33	-6.92	2.48	8.54	11.88	14.95	21.28
54	-35.68	-29.30	-26.21	-22.85	-16.74	-7.28	2.19	8.30	11.66	14.75	21.13
55	-37.32	-30.51	-27.21	-23.62	-17.10	-6.99	3.11	9.63	13.22	16.52	23.33
56	-40.89	-33.23	-29.52	-25.48	-18.14	-6.76	4.61	11.95	15.99	19.70	27.37
57	-41.07	-33.50	-29.84	-25.85	-18.60	-7.37	3.86	11.11	15.10	18.76	26.33
58	-38.02	-31.40	-28.20	-24.71	-18.38	-8.57	1.25	7.58	11.06	14.27	20.48
59	-41.31	-33.95	-30.39	-26.51	-19.46	-8.54	2.38	9.43	13.31	16.87	24.23
60	-44.33	-36.45	-32.64	-28.49	-20.95	-9.26	2.43	9.97	14.12	17.93	25.81
61	-45.52	-37.27	-33.28	-28.94	-21.04	-8.81	3.43	11.32	15.66	19.65	27.90
62	-43.12	-35.32	-31.54	-27.42	-19.95	-8.37	3.22	10.69	14.80	18.58	26.39
63	-40.75	-33.38	-29.81	-25.92	-18.86	-7.92	3.02	10.08	13.97	17.54	24.91
64	-38.36	-31.43	-28.07	-24.41	-17.77	-7.48	2.82	9.45	13.11	16.47	23.41
65	-36.25	-29.69	-26.51	-23.05	-16.77	-7.03	2.71	8.99	12.45	15.62	22.19
66	-33.87	-27.74	-24.73	-21.55	-15.68	-6.59	2.50	8.37	11.60	14.56	20.69
67	-31.49	-25.80	-23.04	-20.04	-14.59	-6.14	2.31	7.76	10.76	13.51	19.20
68	-29.42	-24.09	-21.51	-18.71	-13.61	-5.70	2.21	7.31	10.11	12.69	18.02
69	-26.77	-21.94	-19.60	-17.05	-12.43	-5.25	1.92	6.55	9.10	11.44	16.27
70	-24.42	-20.02	-17.89	-15.57	-11.35	-4.81	1.73	5.94	8.26	10.40	14.80

TABLE 13.8. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH
AUGUST

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-5.72	-4.33	-3.85	-3.25	-1.58	.49	2.56	3.90	4.63	5.31	6.70
1	-3.14	-6.67	-5.47	-4.17	-1.90	1.97	5.55	7.92	9.22	10.42	12.89
2	-9.84	-7.30	-6.07	-4.93	-2.30	1.47	5.24	7.67	9.01	10.24	12.74
3	-10.15	-7.56	-6.30	-5.07	-2.48	1.40	5.26	7.74	9.11	10.36	12.95
4	-10.50	-7.80	-6.49	-5.07	-2.48	1.53	5.24	8.13	9.55	10.86	13.57
5	-11.72	-8.79	-7.35	-5.80	-2.99	1.37	5.74	8.55	10.12	11.57	14.47
6	-13.12	-9.99	-8.47	-6.82	-3.02	.83	5.48	8.46	10.14	11.65	14.79
7	-14.54	-11.25	-9.60	-7.82	-3.32	.46	5.50	8.75	10.53	12.18	15.57
8	-16.22	-12.62	-10.87	-9.07	-3.52	-.17	5.19	8.64	10.54	12.28	15.89
9	-18.06	-14.51	-12.64	-10.50	-3.62	-.50	5.42	9.31	11.44	13.41	17.47
10	-20.10	-16.32	-14.32	-12.21	-3.46	-1.09	6.28	11.02	13.04	16.05	21.01
11	-22.33	-18.14	-16.14	-13.85	-3.33	-1.49	6.95	12.41	15.41	18.17	23.35
12	-24.67	-20.07	-18.07	-15.64	-3.18	-2.19	7.20	13.25	16.59	19.65	25.98
13	-27.17	-22.07	-20.07	-17.44	-2.97	-3.15	6.39	12.54	15.92	19.04	25.46
14	-29.86	-24.15	-22.15	-19.24	-2.72	-4.07	4.47	9.71	12.00	15.25	20.73
15	-32.66	-26.35	-24.35	-21.04	-2.47	-5.07	2.64	6.33	8.36	10.22	14.07
16	-35.56	-28.65	-26.65	-22.84	-2.22	-6.07	1.78	4.52	6.05	7.44	10.32
17	-38.56	-31.05	-29.05	-24.64	-1.97	-7.07	1.00	3.13	4.40	5.51	7.80
18	-41.66	-33.55	-31.55	-26.44	-1.72	-8.07	.29	2.10	3.22	4.18	6.16
19	-44.86	-36.15	-34.15	-28.24	-1.47	-9.07	-.47	1.32	2.30	3.21	5.07
20	-48.16	-38.85	-36.85	-30.04	-1.22	-10.07	-1.25	.57	1.27	2.09	3.79
21	-51.56	-41.65	-39.65	-31.84	-.97	-11.07	-2.07	.03	.91	1.73	3.41
22	-55.06	-44.55	-42.55	-33.64	-.72	-12.07	-2.87	-.04	1.00	1.88	3.69
23	-58.66	-47.55	-45.55	-35.44	-.47	-13.07	-3.67	.35	1.41	2.38	4.39
24	-62.36	-50.65	-48.65	-37.24	-.22	-14.07	-4.47	.65	1.91	2.98	5.09
25	-66.16	-53.85	-51.85	-39.04	.03	-15.07	-5.27	1.00	2.41	3.58	5.79
26	-70.06	-57.15	-55.15	-40.84	.28	-16.07	-6.07	1.41	2.91	4.18	6.49
27	-74.06	-60.55	-58.55	-42.64	.53	-17.07	-6.87	1.81	3.31	4.78	7.19
28	-78.16	-64.05	-62.05	-44.44	.78	-18.07	-7.67	2.21	3.71	5.38	7.89
29	-82.36	-67.65	-65.65	-46.24	1.03	-19.07	-8.47	2.61	4.11	5.98	8.59
30	-86.66	-71.35	-69.35	-48.04	1.28	-20.07	-9.27	3.01	4.51	6.58	9.29
31	-91.06	-75.15	-73.15	-49.84	1.53	-21.07	-10.07	3.41	4.91	7.18	9.99
32	-95.56	-79.05	-77.05	-51.64	1.78	-22.07	-10.87	3.81	5.31	7.78	10.69
33	-100.16	-83.05	-81.05	-53.44	2.03	-23.07	-11.67	4.21	5.71	8.38	11.39
34	-104.86	-87.15	-85.15	-55.24	2.28	-24.07	-12.47	4.61	6.11	8.98	12.09
35	-109.66	-91.35	-89.35	-57.04	2.53	-25.07	-13.27	5.01	6.51	9.58	12.79
36	-114.56	-95.65	-93.65	-58.84	2.78	-26.07	-14.07	5.41	6.91	10.18	13.49
37	-119.56	-100.05	-98.05	-60.64	3.03	-27.07	-14.87	5.81	7.31	10.78	14.19
38	-124.66	-104.55	-102.55	-62.44	3.28	-28.07	-15.67	6.21	7.71	11.38	14.89
39	-129.86	-109.15	-107.15	-64.24	3.53	-29.07	-16.47	6.61	8.11	11.98	15.59
40	-135.16	-113.85	-111.85	-66.04	3.78	-30.07	-17.27	7.01	8.51	12.58	16.29
41	-140.56	-118.65	-116.65	-67.84	4.03	-31.07	-18.07	7.41	8.91	13.18	16.99
42	-146.06	-123.55	-121.55	-69.64	4.28	-32.07	-18.87	7.81	9.31	13.78	17.69
43	-151.66	-128.55	-126.55	-71.44	4.53	-33.07	-19.67	8.21	9.71	14.38	18.39
44	-157.36	-133.65	-131.65	-73.24	4.78	-34.07	-20.47	8.61	10.11	14.98	19.09
45	-163.16	-138.85	-136.85	-75.04	5.03	-35.07	-21.27	9.01	10.51	15.58	19.79
46	-169.06	-144.15	-142.15	-76.84	5.28	-36.07	-22.07	9.41	10.91	16.18	20.49
47	-175.06	-149.55	-147.55	-78.64	5.53	-37.07	-22.87	9.81	11.31	16.78	21.19
48	-181.16	-155.05	-153.05	-80.44	5.78	-38.07	-23.67	10.21	11.71	17.38	21.89
49	-187.36	-160.65	-158.65	-82.24	6.03	-39.07	-24.47	10.61	12.11	17.98	22.59
50	-193.66	-166.35	-164.35	-84.04	6.28	-40.07	-25.27	11.01	12.51	18.58	23.29
51	-200.16	-172.15	-170.15	-85.84	6.53	-41.07	-26.07	11.41	12.91	19.18	23.99
52	-206.76	-178.05	-176.05	-87.64	6.78	-42.07	-26.87	11.81	13.31	19.78	24.69
53	-213.46	-184.05	-182.05	-89.44	7.03	-43.07	-27.67	12.21	13.71	20.38	25.39
54	-220.26	-190.15	-188.15	-91.24	7.28	-44.07	-28.47	12.61	14.11	20.98	26.09
55	-227.16	-196.35	-194.35	-93.04	7.53	-45.07	-29.27	13.01	14.51	21.58	26.79
56	-234.16	-202.65	-200.65	-94.84	7.78	-46.07	-30.07	13.41	14.91	22.18	27.49
57	-241.26	-209.05	-207.05	-96.64	8.03	-47.07	-30.87	13.81	15.31	22.78	28.19
58	-248.46	-215.55	-213.55	-98.44	8.28	-48.07	-31.67	14.21	15.71	23.38	28.89
59	-255.76	-222.15	-220.15	-100.24	8.53	-49.07	-32.47	14.61	16.11	23.98	29.59
60	-263.16	-228.85	-226.85	-102.04	8.78	-50.07	-33.27	15.01	16.51	24.58	30.29
61	-270.66	-235.65	-233.65	-103.84	9.03	-51.07	-34.07	15.41	16.91	25.18	30.99
62	-278.26	-242.55	-240.55	-105.64	9.28	-52.07	-34.87	15.81	17.31	25.78	31.69
63	-285.96	-249.55	-247.55	-107.44	9.53	-53.07	-35.67	16.21	17.71	26.38	32.39
64	-293.76	-256.65	-254.65	-109.24	9.78	-54.07	-36.47	16.61	18.11	26.98	33.09
65	-301.66	-263.85	-261.85	-111.04	10.03	-55.07	-37.27	17.01	18.51	27.58	33.79
66	-309.66	-271.15	-269.15	-112.84	10.28	-56.07	-38.07	17.41	18.91	28.18	34.49
67	-317.76	-278.55	-276.55	-114.64	10.53	-57.07	-38.87	17.81	19.31	28.78	35.19
68	-325.96	-286.05	-284.05	-116.44	10.78	-58.07	-39.67	18.21	19.71	29.38	35.89
69	-334.26	-293.65	-291.65	-118.24	11.03	-59.07	-40.47	18.61	20.11	29.98	36.59
70	-342.66	-301.35	-299.35	-120.04	11.28	-60.07	-41.27	19.01	20.51	30.58	37.29

TABLE 13.9. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

SEPTEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-3.34	-7.79	-6.72	-5.71	-3.74	-4.53	2.35	4.32	5.41	6.40	3.47
1	-17.23	-13.39	-11.51	-9.52	-7.54	-7.15	5.55	9.22	11.24	13.10	15.47
2	-15.42	-11.60	-10.00	-8.37	-6.37	-6.30	5.37	7.46	11.44	13.20	17.01
3	-15.52	-11.89	-10.17	-8.21	-6.74	-6.55	6.15	8.72	11.44	13.20	16.52
4	-15.29	-11.69	-10.00	-8.02	-6.55	-6.31	6.17	9.64	11.34	13.20	16.31
5	-16.08	-12.55	-10.67	-8.67	-6.01	-6.51	6.27	10.02	11.25	13.21	17.74
6	-17.55	-13.49	-11.57	-9.32	-6.51	-6.51	6.53	10.41	11.47	13.21	19.57
7	-19.10	-14.66	-12.51	-10.17	-6.55	-6.55	7.23	11.47	11.47	13.21	20.79
8	-21.29	-15.36	-13.37	-11.37	-6.66	-6.67	8.00	12.42	12.42	13.21	21.68
9	-22.18	-17.77	-15.14	-12.30	-6.72	-6.72	8.81	13.41	13.41	13.21	24.09
10	-25.25	-20.17	-17.32	-14.01	-6.72	-6.72	9.34	13.70	13.32	13.21	24.99
11	-28.45	-22.60	-19.44	-15.25	-6.77	-6.77	9.84	13.70	13.32	13.21	27.39
12	-32.19	-24.83	-21.34	-17.43	-6.77	-6.77	10.70	13.70	13.32	13.21	27.79
13	-34.12	-26.51	-22.61	-18.70	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
14	-32.49	-25.44	-21.00	-18.30	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
15	-25.81	-20.76	-17.72	-14.84	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
16	-15.29	-15.63	-13.72	-11.61	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
17	-14.33	-11.46	-10.17	-9.58	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
18	-12.18	-9.93	-8.67	-7.45	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
19	-11.02	-9.44	-8.10	-7.02	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
20	-10.55	-9.75	-8.32	-7.34	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
21	-10.09	-9.91	-8.54	-7.02	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
22	-10.03	-9.09	-8.24	-7.22	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
23	-11.15	-9.79	-8.54	-7.61	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
24	-11.33	-10.07	-9.17	-8.19	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
25	-12.21	-10.84	-9.67	-9.01	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
26	-13.08	-11.11	-10.16	-9.11	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
27	-13.64	-11.73	-10.70	-9.59	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
28	-15.14	-12.55	-11.29	-9.93	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
29	-14.66	-12.14	-10.93	-9.60	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
30	-14.83	-12.18	-10.90	-9.51	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
31	-13.85	-11.20	-9.91	-8.51	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
32	-14.90	-11.92	-10.48	-9.31	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
33	-14.17	-11.28	-9.87	-8.35	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
34	-13.77	-10.98	-9.63	-9.15	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
35	-15.43	-12.28	-10.76	-9.10	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
36	-16.10	-12.86	-11.29	-9.58	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
37	-17.87	-14.29	-12.55	-10.66	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
38	-18.30	-14.70	-12.95	-11.05	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
39	-18.93	-15.13	-13.29	-11.29	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
40	-20.93	-16.67	-14.61	-12.37	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
41	-23.66	-18.93	-16.64	-14.15	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
42	-25.46	-20.49	-18.08	-15.46	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
43	-26.53	-21.24	-18.68	-15.89	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
44	-25.59	-20.17	-17.55	-14.69	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
45	-22.67	-17.73	-15.34	-12.74	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
46	-23.03	-17.66	-15.05	-12.22	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
47	-19.18	-14.51	-12.24	-9.78	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
48	-18.20	-13.77	-11.62	-9.28	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
49	-18.33	-13.61	-11.33	-8.84	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
50	-18.21	-13.37	-11.03	-8.48	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
51	-20.45	-15.16	-12.60	-9.81	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
52	-20.11	-14.84	-12.29	-9.51	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
53	-19.62	-14.17	-11.52	-8.65	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
54	-21.16	-15.16	-12.26	-9.09	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
55	-23.06	-16.69	-13.60	-10.24	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
56	-21.99	-15.78	-12.77	-9.50	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
57	-17.51	-12.14	-9.54	-6.71	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
58	-12.93	-7.93	-5.51	-2.87	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
59	-13.14	-8.12	-5.69	-3.04	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
60	-19.78	-13.63	-10.73	-7.52	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
61	-19.95	-13.87	-10.92	-7.72	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
62	-19.55	-13.61	-10.74	-7.61	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
63	-19.42	-13.57	-10.73	-7.65	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
64	-19.01	-13.31	-10.55	-7.54	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
65	-18.64	-13.07	-10.38	-7.44	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
66	-18.26	-12.83	-10.20	-7.34	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
67	-17.85	-12.58	-10.02	-7.24	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
68	-17.73	-12.53	-10.02	-7.28	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
69	-17.32	-12.27	-9.83	-7.17	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79
70	-16.95	-12.04	-9.66	-7.07	-6.77	-6.77	11.22	13.70	13.32	13.21	27.79

TABLE 13.10. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS

105 DEGREE FLIGHT AZIMUTH

OCTOBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-13.66	-9.62	-7.67	-6.54	-4.58	-1.54	1.50	3.46	4.54	5.52	7.53
1	-18.07	-14.41	-12.64	-10.71	-7.21	-1.78	3.06	7.16	9.09	10.86	15.52
2	-18.12	-12.54	-10.30	-8.01	-5.43	-1.75	5.17	9.50	10.43	12.32	15.82
3	-15.40	-11.76	-10.00	-8.00	-4.61	-1.55	6.18	9.66	11.56	13.34	16.97
4	-15.57	-11.76	-10.00	-8.00	-4.61	-1.55	7.06	10.71	12.72	14.57	18.33
5	-17.42	-13.09	-11.40	-9.72	-6.50	-1.83	8.24	12.38	14.65	16.78	21.07
6	-17.17	-14.52	-11.97	-10.40	-7.48	-2.41	9.61	14.25	16.37	18.15	24.05
7	-21.56	-16.05	-13.33	-11.40	-8.21	-2.97	11.14	16.41	18.72	21.38	27.40
8	-23.37	-17.75	-14.74	-11.47	-8.52	-3.71	12.94	18.89	22.17	25.19	31.40
9	-22.66	-20.43	-16.33	-13.12	-9.21	-4.53	15.26	22.18	25.59	29.46	36.72
10	-32.29	-23.32	-19.72	-15.20	-10.10	-5.40	17.97	26.07	30.57	34.67	42.10
11	-36.42	-26.22	-22.22	-17.21	-12.22	-6.68	20.07	29.07	34.07	38.67	49.17
12	-38.57	-29.55	-25.71	-19.44	-13.30	-7.00	20.86	30.44	35.71	40.56	50.57
13	-39.00	-30.67	-26.21	-19.33	-13.40	-7.21	20.92	30.77	36.02	40.87	50.87
14	-39.50	-31.25	-26.79	-19.54	-13.52	-7.32	21.03	31.03	36.34	41.19	51.19
15	-39.57	-31.33	-26.87	-19.62	-13.60	-7.39	21.14	31.14	36.45	41.30	51.30
16	-39.63	-31.39	-26.93	-19.68	-13.66	-7.45	21.20	31.20	36.51	41.36	51.36
17	-39.68	-31.44	-26.98	-19.73	-13.71	-7.50	21.25	31.25	36.56	41.41	51.41
18	-39.73	-31.49	-27.03	-19.78	-13.76	-7.55	21.30	31.30	36.61	41.46	51.46
19	-39.78	-31.54	-27.08	-19.83	-13.81	-7.60	21.35	31.35	36.66	41.51	51.51
20	-39.83	-31.59	-27.13	-19.88	-13.86	-7.65	21.40	31.40	36.71	41.56	51.56
21	-39.88	-31.64	-27.18	-19.93	-13.91	-7.70	21.45	31.45	36.76	41.61	51.61
22	-39.93	-31.69	-27.23	-19.98	-13.96	-7.75	21.50	31.50	36.81	41.66	51.66
23	-39.98	-31.74	-27.28	-20.03	-14.01	-7.80	21.55	31.55	36.86	41.71	51.71
24	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
25	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
26	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
27	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
28	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
29	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
30	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
31	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
32	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
33	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
34	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
35	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
36	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
37	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
38	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
39	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
40	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
41	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
42	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
43	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
44	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
45	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
46	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
47	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
48	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
49	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
50	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
51	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
52	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
53	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
54	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
55	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
56	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
57	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
58	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
59	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
60	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
61	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
62	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
63	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
64	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
65	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
66	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
67	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
68	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
69	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72
70	-39.99	-31.75	-27.29	-20.04	-14.02	-7.81	21.56	31.56	36.87	41.72	51.72

TABLE 13.11. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH

NOVEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.59	-7.65	-6.77	-6.07	-5.66	-5.15	1.66	3.47	4.47	5.35	7.23
1	-13.13	-14.25	-12.57	-11.32	-10.00	-8.84	4.97	3.55	12.77	12.59	16.46
2	-16.96	-13.08	-11.21	-9.10	-7.46	-6.00	6.07	3.76	11.10	12.56	17.55
3	-15.87	-12.37	-10.35	-8.32	-6.00	-4.94	5.38	10.70	12.31	14.75	12.75
4	-17.97	-17.61	-11.82	-9.71	-7.05	-5.42	7.68	12.64	14.74	16.44	20.30
5	-10.78	-14.81	-12.50	-10.20	-7.87	-6.04	3.51	14.00	16.53	14.35	20.38
6	-22.45	-16.90	-14.15	-11.05	-8.67	-6.72	11.11	18.51	16.00	12.00	27.00
7	-25.45	-14.37	-15.24	-12.42	-9.22	-7.40	13.63	19.32	16.54	15.75	32.32
8	-25.29	-21.83	-18.22	-14.20	-10.15	-7.95	14.98	22.12	26.50	21.67	27.10
9	-33.17	-24.55	-20.57	-16.02	-11.40	-8.79	17.45	25.32	27.42	24.32	40.75
10	-38.12	-28.34	-23.63	-18.46	-13.10	-9.41	19.91	26.21	24.43	29.17	49.94
11	-42.27	-31.45	-26.21	-20.51	-14.17	-10.17	21.37	28.52	24.50	31.00	44.50
12	-44.06	-32.79	-27.37	-21.75	-14.60	-10.13	22.86	23.61	24.50	40.00	56.50
13	-39.54	-29.25	-24.28	-19.34	-13.73	-10.56	23.42	31.42	25.04	41.30	52.17
14	-33.08	-24.73	-20.17	-15.50	-12.27	-10.66	19.55	18.91	21.61	37.71	44.41
15	-26.46	-19.40	-15.77	-12.26	-9.51	-8.07	15.45	22.00	25.00	23.24	25.40
16	-21.70	-15.94	-12.10	-9.13	-6.65	-5.42	12.46	17.00	20.00	25.00	25.00
17	-13.18	-13.47	-11.32	-8.70	-6.20	-5.30	3.73	14.22	16.73	23.00	23.77
18	-14.53	-10.28	-9.15	-7.15	-5.70	-4.70	7.13	15.62	12.54	24.22	17.86
19	-12.15	-9.15	-7.71	-6.15	-5.27	-4.17	5.61	16.47	13.65	11.49	14.40
20	-10.64	-8.07	-6.67	-5.46	-4.72	-3.79	4.00	7.65	8.41	5.05	12.21
21	-10.34	-7.34	-6.04	-5.32	-4.53	-3.78	4.43	6.83	3.13	3.40	11.30
22	-10.71	-8.10	-6.62	-5.46	-4.65	-3.92	4.00	7.30	3.68	5.94	10.56
23	-10.30	-7.52	-6.40	-5.05	-4.55	-3.33	5.21	7.71	3.33	10.31	12.36
24	-10.37	-7.66	-6.37	-4.92	-4.32	-3.71	5.73	7.73	3.75	11.07	13.76
25	-11.63	-9.51	-7.12	-5.50	-4.55	-3.02	5.53	7.24	11.15	12.05	15.77
26	-11.85	-8.66	-7.10	-5.44	-4.29	-3.35	7.08	11.21	11.61	12.55	16.55
27	-11.47	-8.71	-6.62	-4.32	-3.30	-3.04	7.87	10.93	12.77	14.00	17.54
28	-8.24	-3.16	-3.16	-1.36	-1.32	-1.00	12.09	15.37	17.17	18.42	22.55
29	-9.01	-5.22	-3.38	-1.39	-2.25	-1.98	13.51	17.14	19.14	20.37	24.77
30	-8.07	-4.72	-2.35	-1.32	-3.37	-3.09	14.81	13.50	20.53	22.40	26.26
31	-8.57	-4.47	-2.44	-1.32	-3.61	-3.70	15.87	15.73	21.39	23.57	27.99
32	-9.67	-5.20	-3.03	-1.68	-3.60	-10.24	16.80	21.15	21.51	23.51	25.14
33	-9.75	-5.02	-2.77	-1.23	-4.29	-11.31	18.33	22.86	25.16	27.65	25.29
34	-9.69	-4.31	-2.45	-1.13	-4.80	-12.04	19.29	23.46	26.51	28.95	33.74
35	-12.84	-7.13	-4.37	-1.36	-4.11	-10.58	20.06	26.52	28.53	32.30	38.61
36	-12.87	-7.23	-4.50	-1.53	-3.96	-12.23	20.57	25.99	28.96	31.69	37.33
37	-12.72	-6.86	-4.05	-1.98	-4.61	-13.28	21.94	27.53	20.60	33.43	39.27
38	-15.01	-9.26	-5.33	-2.43	-4.03	-14.04	24.06	30.52	34.07	37.34	40.23
39	-16.28	-9.12	-5.66	-1.85	-4.96	-15.57	26.19	33.64	36.81	40.57	47.42
40	-16.43	-9.08	-5.52	-1.65	-5.39	-16.30	27.21	34.24	33.11	41.57	43.42
41	-18.69	-10.66	-6.76	-2.53	-5.16	-17.09	29.02	36.71	40.55	44.84	52.87
42	-17.57	-9.42	-5.47	-1.13	-6.63	-14.73	30.82	38.63	42.92	46.47	55.02
43	-16.66	-8.16	-4.67	-1.43	-6.57	-21.18	33.79	41.92	44.40	50.52	59.61
44	-16.14	-6.30	-2.42	-1.45	-11.30	-25.02	38.74	47.59	52.46	55.34	65.19
45	-14.49	-5.08	-1.53	-4.43	-13.43	-27.39	41.35	50.35	55.31	59.86	69.26
46	-15.86	-5.64	-1.63	-4.70	-14.48	-29.65	44.82	54.60	59.39	64.34	75.17
47	-14.05	-4.37	-1.75	-6.33	-16.45	-32.15	47.85	57.97	63.55	68.67	79.25
48	-11.37	-1.30	-3.58	-2.89	-18.54	-33.49	49.45	59.09	63.40	69.78	78.35
49	-11.71	-1.30	-3.73	-3.22	-19.18	-34.62	50.06	60.02	65.50	70.54	80.95
50	-11.31	-1.51	-3.47	-2.90	-18.75	-34.03	43.31	59.16	64.59	69.57	79.87
51	-10.05	-1.40	-4.27	-3.35	-18.59	-32.90	47.22	56.46	61.54	66.01	75.86
52	-10.13	-1.54	-4.17	-3.21	-18.44	-32.75	47.06	56.29	61.37	65.04	75.69
53	-12.88	-2.70	-2.70	-7.60	-17.34	-32.45	47.56	57.30	62.67	67.60	77.77
54	-13.17	-6.50	-1.70	-5.10	-16.18	-33.35	50.53	61.60	67.70	73.30	84.97
55	-16.59	-5.66	-1.70	-4.39	-15.86	-32.08	48.30	58.76	64.52	69.81	80.74
56	-14.65	-4.42	-1.70	-5.33	-15.73	-30.32	46.11	55.31	61.30	66.25	76.49
57	-10.88	-1.46	-3.10	-3.67	-17.09	-31.07	45.05	54.67	59.03	63.59	73.01
58	-6.39	-2.24	-6.42	-10.37	-19.23	-34.05	44.86	53.12	57.67	61.85	70.49
59	-9.45	-4.41	-5.18	-10.38	-19.62	-34.45	49.08	58.52	63.71	68.49	77.35
60	-12.16	-1.72	-3.34	-1.84	-18.94	-34.34	49.84	59.84	65.34	70.40	80.44
61	-10.53	-1.72	-4.07	-2.29	-18.77	-33.48	48.18	57.65	62.28	67.68	77.58
62	-10.59	-1.93	-3.81	-2.92	-18.21	-32.61	47.02	56.30	61.44	66.12	75.82
63	-10.56	-1.06	-3.54	-6.55	-17.65	-31.75	45.85	54.95	59.96	64.56	74.06
64	-10.52	-1.22	-3.28	-8.18	-17.09	-30.89	44.69	53.60	58.50	63.00	72.30
65	-16.76	-1.60	-2.84	-7.67	-16.43	-30.03	43.63	52.39	57.22	61.66	70.80
66	-10.70	-1.75	-2.59	-7.31	-15.88	-29.17	42.46	51.03	55.74	60.09	69.03
67	-10.66	-1.91	-2.33	-6.94	-15.32	-28.31	41.30	49.67	54.28	58.50	67.27
68	-10.63	-2.09	-2.06	-6.57	-14.75	-27.44	40.13	48.32	52.82	56.36	65.51
69	-10.59	-2.24	-1.80	-6.20	-14.19	-26.58	38.97	46.96	51.36	55.41	63.75
70	-10.56	-2.41	-1.54	-5.83	-13.63	-25.72	37.81	45.61	49.90	53.95	62.00

TABLE 13.12. CAPE KENNEDY RIGHT AND LEFT CROSSWIND COMPONENTS
105 DEGREE FLIGHT AZIMUTH
DECEMBER

Cumulative Percentage Probability											
Alt(km)	0.135	1.000	2.280	5.000	15.900	50.000	84.100	95.000	97.720	99.000	99.865
0	-9.49	-7.55	-6.62	-5.66	-3.75	-0.88	1.29	3.24	4.86	5.79	7.73
1	-17.25	-13.27	-11.34	-9.24	-5.42	-0.49	5.40	10.22	12.32	14.25	18.23
2	-15.09	-11.28	-9.47	-7.43	-3.78	1.87	7.52	11.17	13.19	15.02	18.83
3	-15.70	-11.57	-9.57	-7.40	-3.45	2.68	8.80	12.75	14.93	16.93	21.06
4	-17.25	-12.50	-10.20	-7.70	-3.15	3.90	10.95	15.50	18.00	20.30	25.06
5	-19.49	-13.93	-11.25	-8.32	-3.01	5.24	13.43	18.79	21.72	24.41	29.96
6	-21.23	-15.08	-12.10	-8.85	-2.96	6.17	15.31	21.20	24.44	27.42	33.58
7	-23.26	-16.40	-13.09	-9.45	-2.89	7.29	17.47	24.04	27.66	30.98	37.84
8	-25.01	-18.25	-14.50	-10.41	-2.90	8.52	20.02	27.45	31.13	35.29	43.04
9	-29.42	-20.63	-16.37	-11.73	-3.32	9.74	22.79	31.21	35.95	40.11	48.90
10	-33.25	-23.27	-18.50	-13.39	-3.94	10.71	25.36	34.81	40.01	44.79	54.66
11	-35.53	-25.00	-19.37	-14.41	-4.31	11.35	27.01	37.10	42.66	47.77	58.32
12	-36.27	-25.35	-20.00	-14.36	-3.85	12.36	28.57	39.02	44.78	50.07	60.99
13	-32.59	-22.40	-17.45	-12.03	-2.32	12.31	27.94	37.70	43.53	48.02	58.21
14	-25.82	-17.30	-13.17	-7.68	-0.52	12.14	24.79	32.99	37.44	41.57	50.09
15	-21.05	-13.38	-10.40	-5.62	-0.25	10.31	21.56	28.43	32.21	35.69	42.87
16	-18.51	-12.24	-9.20	-4.96	-0.10	9.41	18.71	24.72	28.02	31.07	37.32
17	-17.60	-11.94	-9.20	-4.62	-0.31	7.53	15.97	21.39	24.27	27.10	32.76
18	-15.00	-10.75	-8.10	-5.61	-1.20	5.70	12.60	17.05	19.50	21.75	26.40
19	-13.29	-9.47	-7.55	-5.53	-1.84	3.33	9.61	13.30	15.33	17.20	21.06
20	-11.43	-8.24	-6.69	-5.00	-1.94	2.82	7.55	10.61	12.29	13.84	17.04
21	-11.40	-8.20	-6.72	-5.12	-2.12	2.52	7.16	10.15	11.80	13.31	16.44
22	-10.35	-7.54	-6.19	-4.70	-2.01	2.15	6.33	9.02	10.50	11.86	14.67
23	-10.49	-7.59	-6.13	-4.65	-1.87	2.44	6.75	9.53	11.06	12.46	15.37
24	-10.34	-7.51	-5.84	-4.21	-1.25	2.14	7.64	10.53	12.13	13.59	16.62
25	-11.63	-7.83	-6.25	-4.43	-1.25	2.73	8.71	11.93	13.70	15.33	18.69
26	-11.63	-8.08	-6.36	-4.48	-1.06	4.23	9.53	12.94	14.82	16.55	20.12
27	-11.84	-8.08	-6.25	-4.27	-0.67	4.32	10.51	14.12	15.12	17.92	21.69
28	-11.21	-7.22	-5.29	-3.19	-0.62	6.54	12.46	16.27	18.38	20.31	24.29
29	-11.43	-7.21	-5.16	-2.94	-1.10	7.37	13.63	17.67	19.90	21.94	26.16
30	-10.93	-5.63	-3.50	-1.18	-3.04	9.57	16.10	20.32	22.64	24.77	29.17
31	-10.72	-5.84	-3.48	-0.91	-3.75	10.98	18.22	22.88	25.45	27.81	32.68
32	-11.30	-6.03	-3.48	-0.70	-4.34	12.16	19.98	25.02	27.80	30.35	35.62
33	-13.01	-7.40	-4.43	-1.32	-4.43	13.36	22.28	28.04	31.21	34.12	40.13
34	-13.30	-7.19	-4.28	-1.01	-4.83	13.90	22.96	28.81	32.03	34.99	41.09
35	-15.19	-8.82	-5.74	-2.38	-3.71	13.16	22.61	28.71	32.06	35.14	41.51
36	-17.29	-10.50	-7.21	-3.63	-2.88	12.96	23.05	29.55	33.14	36.43	43.22
37	-20.31	-12.85	-9.23	-5.30	-1.84	12.91	23.99	31.13	35.06	38.68	46.14
38	-23.73	-15.54	-11.57	-7.26	-0.58	12.74	24.90	32.74	37.05	41.02	49.21
39	-23.94	-15.47	-11.36	-6.90	1.22	13.79	26.37	34.49	38.95	43.06	51.53
40	-24.35	-15.71	-11.53	-6.98	1.29	14.12	26.94	35.21	39.77	43.95	52.59
41	-22.51	-14.27	-10.28	-5.93	1.96	14.19	26.43	34.32	38.66	42.66	50.90
42	-22.38	-14.16	-10.18	-5.85	2.01	14.20	26.40	34.26	38.59	42.57	50.78
43	-21.27	-13.25	-9.37	-5.14	2.54	14.44	26.35	34.03	38.26	42.14	50.16
44	-20.94	-13.04	-9.21	-5.04	2.52	14.25	25.98	33.55	37.71	41.54	49.45
45	-20.07	-12.36	-8.63	-4.57	2.81	14.25	25.69	33.07	37.13	40.87	48.57
46	-20.04	-12.31	-8.56	-4.48	2.92	14.40	25.88	33.28	37.36	41.11	48.84
47	-20.15	-12.13	-8.25	-4.02	3.65	15.55	27.45	35.12	39.34	43.23	51.24
48	-20.32	-12.02	-7.97	-3.56	4.44	16.86	29.27	37.28	41.69	45.74	54.10
49	-20.75	-12.26	-8.14	-3.67	4.47	17.07	29.68	37.81	42.29	46.40	54.90
50	-22.40	-13.68	-9.45	-4.85	3.49	16.44	29.39	37.73	42.33	46.56	55.28
51	-24.45	-15.12	-10.59	-5.67	3.26	17.12	30.98	39.92	44.84	49.36	58.69
52	-26.02	-16.45	-11.82	-6.77	2.38	16.58	30.78	39.94	44.98	49.61	59.18
53	-28.53	-18.59	-13.78	-8.54	-0.97	15.72	30.47	39.98	45.22	50.03	59.97
54	-28.16	-18.39	-13.66	-8.51	-0.83	15.33	29.82	39.17	44.32	49.05	58.81
55	-35.07	-22.36	-17.17	-11.52	-1.26	14.65	30.56	40.81	46.46	51.65	62.37
56	-36.77	-25.00	-19.31	-13.11	-1.85	15.61	33.07	44.33	50.53	56.22	67.98
57	-38.57	-26.59	-20.78	-14.46	-2.99	14.80	32.59	44.06	50.38	56.19	68.17
58	-39.06	-27.18	-21.42	-15.15	-3.77	13.88	31.52	42.90	49.17	54.93	66.81
59	-45.64	-32.99	-26.86	-20.20	-8.09	10.69	29.47	41.58	48.25	54.38	67.03
60	-45.54	-32.93	-26.89	-20.14	-14.24	10.41	35.06	50.96	59.71	67.76	84.36
61	-48.01	-33.45	-27.37	-20.75	-8.72	9.92	28.57	40.59	47.21	53.29	65.65
62	-41.96	-30.42	-24.85	-18.75	-7.71	9.42	26.55	37.59	43.68	49.26	60.80
63	-37.95	-27.42	-22.32	-16.78	-6.70	8.93	24.56	34.64	40.19	45.29	55.81
64	-33.93	-24.42	-19.81	-14.80	-5.69	8.43	22.55	31.66	36.67	41.28	50.79
65	-30.16	-21.60	-17.46	-12.95	-4.75	7.95	20.65	28.85	33.36	37.50	46.06
66	-26.19	-18.64	-14.98	-11.00	-3.77	7.45	18.66	25.89	29.87	33.53	41.09
67	-22.26	-15.70	-12.52	-9.06	-2.78	6.96	16.70	22.98	26.43	29.61	36.17
68	-18.45	-12.85	-10.18	-7.19	-1.84	6.47	14.77	20.13	23.08	25.78	31.38
69	-14.71	-10.07	-7.82	-5.37	-0.93	5.97	12.86	17.30	19.75	22.00	26.64
70	-11.17	-7.43	-5.62	-3.65	-0.07	5.48	11.03	14.60	16.57	18.38	22.12

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APPROVAL

NORMAL PROBABILITIES FOR CAPE KENNEDY WIND COMPONENTS – MONTHLY REFERENCE PERIODS FOR ALL FLIGHT AZIMUTHS – ALTITUDES 0 TO 70 KILOMETERS

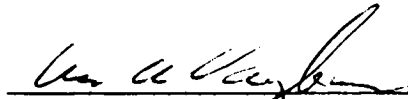
By L.W. Falls

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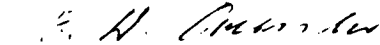
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